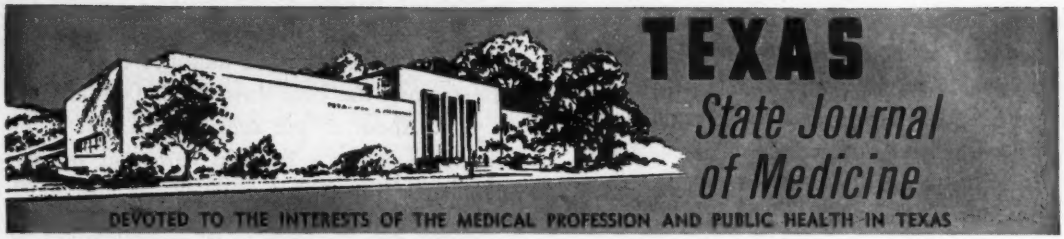

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Psychiatry in Texas

Dramatic developments have occurred in American psychiatry in the past five decades. Advances in dynamic psychiatry, individual psychotherapy, group psychotherapy, administrative techniques, and architecture and the advent of professional adjunctive services have contributed tremendously to the prevention and cure of psychiatric illness. Early intensive treatment results in the recovery of patients previously considered to be incurable.

At the turn of the century the practice of psychiatry consisted primarily in the philosophical contemplation of nervous and mental disease. The psychiatric hospital, private or public, was, in fact, a place where the mentally ill patient could seek asylum from a nonsympathetic public. Today it need no longer be true that the psychiatric hospital is simply a warehouse for the bodies of psychiatrically ill people.

Psychiatric treatment today could be considered as set up in echelon:

1. An attempt at the education of the general public toward better mental health.

2. Research. Nonprofit foundations for research and education in psychiatry are now contributing to the education of the intensely needed personnel and for research which will push back further the frontiers of psychiatry.

3. Early office treatment with the result that many persons are able to avoid psychiatric hospitalization.

4. The earlier hospitalization of the acute and potentially recoverable patient in hospitals which are, themselves, designed as therapeutic tools. Here the patient has all the facilities of modern hospitalization, including complete

physical examination, x-ray, electroencephalography, laboratory service, consultation with other medical and surgical specialists, psychiatric examinations, psychological testing, and a social work department to help the family with a better understanding of psychiatric illness and to change, if necessary, things within the family which would contribute to a recurrence of illness or the relapse of the patient. The modern psychiatric hospital also supplies the therapeutic impact of group techniques of therapy, including individual psychotherapy, group psychotherapy, prescribed and psychiatrically directed and oriented occupational and recreational therapy, and the help of psychiatrically oriented nurses and psychiatric aides. In the hospital setting pharmacological and physiological therapies and individual and group psychotherapy occupy only a few hours of the patient's day. It has become the function of the administrative psychiatrists to weld the hospital personnel into a therapeutic tool oriented toward the recovery of the patient.

6. Day and night hospital facilities. These provide the total impact of all hospital therapies on that person who should not be completely hospitalized. Some receive such treatment at night while carrying on a job in the daytime. Others are treated during the day and can live at home at night. This type of facility also helps the post-hospitalized patient make the transition between hospital and the responsibilities of home, job, and community.

It is still true that 250,000 new patients are admitted to psychiatric hospitals each year, that half of all America's hospital beds are occupied by persons suffering from psychiatric illness, and that 1 out of 10 people is suffering from some form of mental illness. With 17,000,000 people in the United States requiring psychiatric help, there are only 10,500 psychiatrists available. Approximately half of these work full time in psychiatric hospitals. The other 5,250 are occupied with early treatment on an out-patient basis. Twenty thousand psychiatrists are needed at present, and only 500 complete resident training annually.

The evidence at hand indicates that mental illness costs the United States $4,000,000,000 a year. About .5 per cent of this cost is invested in research to help cure and prevent psychiatric illness.

Texas has represented the combination of the old and the new. Its three medical schools, the Veterans Administration, one private hospital, and one state hospital provide training in psychiatry. One college trains social workers and one university offers a doctor of philosophy degree in clinical psychology. Mental health education is carried on by psychiatrists in private practice, one of the great private foundations, and the mental health society. Early treatment on an out-patient basis is provided by private psychiatrists, private clinics, the three medical schools, and child guidance clinics. Intensive treatment for the acute and potentially recoverable patient is offered by private psychiatrists in general hospitals, a small number of good private psychiatric hospitals, and the treatment centers provided by the medical schools. State hospitals are improving treatment facilities. Their staffs will grow with the programs in education and research.

Within recent years the Texas State Legislature has made itself, psychiatrically, the best informed legislative body in the United States. Its committees have surveyed the best psychiatric treatment, teaching, and research centers. The result has been that, whereas in most states the people are bringing tremendous pressure upon their legislative bodies for better state psychiatric care, the Texas Legislature is making this demand of the voters. It has pointed out that, whereas 16,000 patients are now housed in state psychiatric hospitals, within the next 20 years the requirement will be for buildings for 28,000. It is aware of the fact that the acute treatment centers send 80 to 90 per cent of patients back into their communities as gainfully occupied, socially acceptable

people and that, therefore, the requirement in Texas is not for more buildings but for more psychiatrists, clinical psychologists, social workers, and psychiatrically oriented nurses and psychiatric aides. The Legislature has inaugurated a pilot plant to provide out-patient psychotherapy, intensive treatment units, and follow-up care for the post-hospitalized patient. Such units are integrated with the research and training facilities of medical schools so that the indigent may have the advantages heretofore provided only for the private patient, thereby reducing the need for bigger psychiatric hospitals designed for the physical housing of the psychiatrically ill.

PERRY C. TALKINGTON, M.D., Dallas.

Iatrogenic Heart Disease

We as physicians have many duties and responsibilities, most of which are directed toward our patients. These obligations, in order of their importance, might be listed as follows:

1. Wherever possible to prevent disease.
2. Where this is not possible to cure disease.
3. Where neither of these is possible to mitigate disease.

Too frequently only the third alternative seems possible; but the first alternative is applicable to iatrogenic heart disease.

This condition is seen frequently; often it is severe and disabling. It is easily induced but often refractory to treatment. Like Banquo's ghost it is persistent, recurrent, and difficult to dispense with. We as physicians are the etiologic agent, and although this type of heart disease is functional rather than organic, the disability may be equally great. Perhaps there are two kinds of heart disease, and I sometimes wonder if the intracranial variety is not even more severe than the intrathoracic variety. Trivial incidents such as our facial expression while taking a blood pressure reading may induce fear and anxiety on the part of our patient. Unwise or misunderstood remarks may do likewise. Patients often tell me what some other physician told them last week, or what I told them last month. These quotations may be grossly inaccurate, misinterpreted by the patient, but still produce a profound psychological effect on the patient. An error I have made several times in the past illustrates this point. Often in reporting to a patient after examination I have said, "your pulse is slow," meaning that it is normal, but on several occasions I have found later that the patient interpreted this remark to signify some dire bradycardia or heart block.

I have seen elderly spinsters who have never married—for that matter they have never lived in a very full sense of the word—because years ago a well meaning disciple of Aesculapius made an indirect remark about a heart murmur which was functional and harmless. This "murmur" in no way would have interfered with a normal and useful life, but the physician's remark condemned the patient to a life of chronic invalidism.

At times orthodox therapeutic measures may produce at least a psychogenic overlay. At the Second Inter American Congress of Cardiology, I read a paper entitled "Is the Orthodox Therapy of Rheumatic Fever Conducive to Psychosomatic Disability?" Rest is perhaps one of our most valuable therapeutic agents, but even this can be overdone with deleterious effects upon the psyche and soma of our patients.

Another frequent source of iatrogenic cardiopathy is misinterpretation of electrocardiographic tracings. Our friend and colleague, George Herrmann, once said that the most frequent electrocardiographic error was to read too much into the tracing. I agree. Not too long ago a professional colleague of mine experienced chest pain, not typically angina. An electrocardiogram was made, unfortunately with the arm electrodes reversed. This error of course inverted lead I and interchanged leads II and III; AVR and AVL were interchanged, but AVF and the Wilson leads were not affected. The patient, not a cardiologist, inter-

preted T_1 negativity as evidence of a coronary thrombosis, anterior. An explanation of this error together with a second tracing which was normal prevented psychogenic disability in this case. There are other such cases in my files, and I am sure similar cases occur in the files of most physicians.

To help our patients, we must at all times be truthful, but a frank discussion of our findings can be done in a friendly, sympathetic, and diplomatic manner, after which most patients accept willingly necessary restriction of physical activity and all other therapeutic measures. You and I as physicians are the only persons who can eradicate the scourge of iatrogenic heart disease.

—WILLIAM B. ADAMSON, M.D., Abilene.

Officers Build Societies

How strong each county medical society will be during the coming year will depend mainly on the officers which the society elects during November and December. Several of the following ideas might be kept in mind by societies concerning the election of officers.

1. To have a strong, active society, it is imperative that the society be backed with capable, hard working leaders who are willing to devote their time to building a better county organization. It is vitally important, therefore, to choose a slate of officers who are well informed as to the background of the county society, as well as the Texas Medical Association.

2. The election of a president-elect or vice-president who will take over the presidency the following year is a good policy. This allows the person time to learn of his responsibilities before taking office. Besides making him feel more confident when he becomes president, the society will profit greatly by having a more informed leader.

3. The position of secretary is a tremendous job in most societies and requires a physician who knows his society, who is able to handle the financial affairs of the society if necessary, and who has time to devote to the many duties which are required of him. In the past, many times the newest member of a society has been saddled with the office of secretary simply because he was the only one willing to accept it. This is no longer possible, however, since a physician must be a provisional member of a society for 2 years before becoming a full fledged member eligible to hold office.

4. County societies should elect delegates to the annual session by January as specified in the Constitution and By-Laws. Delegates need to be elected well in advance of the annual state meeting in order that they can be sent material on the resolutions and the reports of councils and committees to be presented before the House of Delegates at the annual session. Then they are able to acquaint themselves with the problems of the Association early, present them to the county society as a group, and have the advantage of the society's opinions in their approach to a solution.

County societies are urged to see that their society will be represented at all sessions of the House of Delegates during the 1959 annual session. During meetings of the House in Houston last year, 18 county societies were totally unrepresented. Names of the delegates elected should be reported to the Texas Medical Association promptly so that they will receive advance mailings and so that the delegates may be considered for appointment to reference committees. County societies will find it to their advantage not to elect as delegate a physician who already is entitled to a seat in the House of Delegates through an office which he holds in the Association.

By following these four steps, it is hoped that county societies will elect officers who will work hard toward the common goal of making county societies stronger than they have ever been in the past.

★ Current Editorial Comment

Medical Insurance For the Aged

A man 64 years old had been employed for many years by a company in Texas. Because he was soon to be retired from his job and would automatically lose the help of insurance coverage which was part of his company benefit, he applied for and was issued a Blue Cross-Blue Shield policy. Within a few months he was diagnosed as having a cancer, and Blue Cross-Blue Shield paid the bill.

This story illustrates what I believe to be a significant part of the problem of financing medical care for the aged. Well known commercial companies, as a rule, offer coverage to large groups but not individual contracts. Likewise, many of them, such as the one mentioned in the example, have no conversion privileges, and the person enrolled in this plan, when he is no longer able to work, has no coverage. Blue Cross-Blue Shield cannot continue to write broad coverage for the people of the state if the commercial companies are allowed to carry the larger, more profitable groups and then discard them if experience gets bad, if the people get old or sick, or for whatever reason. This, in my opinion, is one of the large loopholes in our present system of prepaid health coverage.

Blue Cross-Blue Shield has conversion privileges with its groups, so that one becoming old, sick, or retired can transfer to the individual department and continue on that basis. Moreover, in many group enrollments, Blue Cross enters into agreements with the employer to continue Blue Cross for retirees as a group with payments being handled by the former employer. Such persons will be protected as long as dues are paid, and the coverage will not be terminated because of illness or disability.

There are certain states, Arkansas for example, in which Blue Cross-Blue Shield has special plans with special provisions for elderly people. Up to now, their experience is good, and they are optimistic. In Texas, Blue Cross-Blue Shield drew up in complete detail a limited plan for a group of old people, but when this was examined by a statistician, the rate necessary to break even precluded any chance of its success. I believe that a very limited plan is doomed to failure because it would not do the job, whereas a plan broad enough could not succeed because of the cost. As I see it, the only answer is for the doctors and hospitals to agree to take care of elderly people for substandard allowances and see to it that someone administers such a plan with no thought of profit.

Actually, the problem with relation to care for the aged is not so great as one might expect from the number of words that have been said and written on the subject. For years, Blue Cross-Blue Shield has had no age limit on its group enrollment. This means that 94 per cent of those enrolled in Texas Blue Cross-Blue Shield have had no restrictions of this nature. Six per cent of the members did enroll on a nongroup basis, and for this small minority, there is a 65 year age limit. If there were some way to increase the number of people covered in a good plan that did not cancel its members and had conversion privileges, everyone could be covered before reaching the age of 65. The only problem would be an immediate one, that is, those who are currently past the age of 65 and uninsurable. If such could be brought about, then in a relatively few years the old age problem would disappear.

—ROY T. LESTER, M.D., Dallas.

♦ Dr. Lester, Blue Cross-Blue Shield of Texas, 2208 Main, Dallas.

This department of the JOURNAL *presents editorial comments on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the Texas Medical Association to submit such discussions for this department. The discussions should not be more than 500 words in length.*

President's Page

AUTOMATIC? NOT QUITE

DR. SMITH

Automation has caught the imagination of all of us. There is something about the complex electronic devices of business and research, the mechanical monsters of industry, that fascinates and awes us. As wonderful as these machines are, however, there are human beings who must make use of them and guide them if they are to perform effectively.

The machinery of insurance has been designed, tested, and applied in a complexity of ways to modern living, touching at many points on the business of health care. Sometimes we may think of insurance plans as automatons that, having been set in motion, will look after themselves, but they too need intelligent use and guidance.

Previously I have called attention to the need for physicians to know as much as they can about voluntary health insurance plans and to see that their patients also are informed about them. To make these plans work effectively for patient, doctor, hospital, and insurer, intelligent guidance and use is essential—the machine cannot be expected to run itself. Abuse of the machine or failure to tighten a bolt here, oil a rough spot there, could result in serious breakdown.

Another application of the insurance principle is in the machinery set up to compensate workmen who are injured or become ill in connection with their jobs. Workmen's compensation laws involve insurance carriers who provide insurance coverage for workmen under these laws and the doctors who treat them, as well as the employer and the injured or ill workman himself. From time to time, this machinery has developed problem spots, and a former president of the Texas Medical Association, Dr. George Turner, not trusting automation to take over completely, appointed a Committee for Liaison with Workmen's Compensation Insurance Companies to see what could be done to keep the machinery in good working order. A similar committee was created by the Workmen's Compensation Insurance Carriers of Texas.

At first these were temporary committees, with the group of the Texas Medical Association making its recommendations to the Board of Councilors. In 1956, the Association's committee was made a standing committee by the House of Delegates, and about that same time the Workmen's Compensation Insurance Carriers of Texas also established a permanent committee. Together, these groups, representing a large and important part of the insurance industry and the physicians of Texas, adopted a plan to allow differences between them to be settled locally.

Now each county medical society has been instructed by the Board of Councilors to appoint a county medical grievance committee to serve with three claims representatives as an arbitration committee. Those dissatisfied by a decision locally may appeal to the Committee for Liaison with Workmen's Compensation Insurance Companies.

Utilization of this important tool is simple. As an example, if you should have a complaint against a Workmen's Compensation Insurance Carrier for failure or delay in paying a bill or taking a patient away from you without your knowledge and consent, you simply write a letter to the chairman of your county grievance committee (or to the chairman of the Committee for Liaison with Workmen's Compensation Insurance Companies) setting out your complaint and the associated facts. The necessary machinery to arbitrate your grievance will be set in motion. An important feature of such a procedure is that, although it does not take away any legal right you may have, it usually eliminates disputes in open court; it thus might deprive those who seek nationalization of our profession and the insurance industry of ammunition to further their aim.

Fine as these insurance machines and the tools to keep them running smoothly may be, however, we must know how they operate and use them wisely or they will cease to produce the products we want.

Howard O. Smith M.D.

ORIGINAL ARTICLES

Some of the Newer Theories Of the Etiology Of Peptic Ulcer

JOHN TILDEN HOWARD, M.D.

Baltimore, Maryland

GENERALLY we practitioners of medicine are more concerned with the diagnosis and therapy of peptic ulceration than we are with its cause or causes. However, I would like to recount some of the ideas that have been expressed relatively recently about the etiology of peptic ulceration. Most physicians may agree with the medical student who, speaking in a general way, says, "The cause of peptic ulcer is unknown." Yet he is not entirely right, for a number of factors in the causation of peptic ulceration are known, just as some of the factors affecting the occurrence of some cancers are known. To be aware of these factors in the etiology of ulcer and of the trend of thought in that field increases one's interest in it and adds to the self-confidence of the clinician in dealing with his patients who have peptic ulcerations. One cannot know too much in these times when surveys of publishers indicate that articles concerning health hold first place in the interests of the reading public and when the science writers make medical subjects so readable.

To this point I have spoken of peptic ulceration rather than of gastric, duodenal, esophageal, or gastrojejunal ulcers. I believe that there is more unity than difference in these peptic lesions, especially in the first two. Many persons disagree with me and consider gastric and duodenal ulcers to be separate ailments; their opinions I respect and I admit that it may be easier to point out differences than similarities. But ulcers at either site are histologically the same, though gastric ulcerations tend to be larger than those in the duodenum; further, one must not forget that they occasionally occur simultaneously in the upper gastrointestinal tract of the same individual. They both give epigastric pain in the food-relief-pain rhythm; tend to be chronic and characterized by periodicity of symptoms; require the presence of acid and pepsin; and heal, if uncomplicated, with the same medical therapy. But we must concede that there are striking differences in the degrees of gastric acidity in the two sites of peptic ulceration.

The psychiatrists and the psychosomaticists tell us that there are differing psychic constitutions in the bearers of duodenal and gastric ulcer, and this evidence is impressive, as I will explain later. Then the hematologists tell us that the proportion of patients with duodenal ulcers and with blood of the group O type is unaccountably high, while the patients with gastric ulcerations are distributed among the blood groups in the usual percentages. Also there are these postsurgical differences: Stomal or jejunal ulcers are rare after simple gastroenterostomies for the treatment of gastric ulcers, whereas such a complication of that operation is rather common when it is used in the treatment of a duodenal ulcer. The same ratio of jejunal ulceration holds after gastric resection unless in duodenal ulceration the resection is a very large one. Complete vagotomy is a better operation for duodenal ulcer than for gastric ulcer. Thus, it appears that the different secretory rates in gastric and duodenal ulcers account for differing surgical results. But they are both peptic ulcers, and I continue to consider them to be only differing manifestations of the same disease.

MUCOSAL RESISTANCE

Peptic ulcer does not occur in patients who have achylia gastrica or in the lower small intestine where the reaction is alkaline. Hydrochloric acid and pepsin are necessary for the formation of an ulcer, as well as an area of devitalized tissue which allows autodigestion. In the usual discussions of the pathogenesis of gastric and duodenal ulceration, much more has been said about the attacking acid-pepsin factor than about mucosal resistance. And there has been, I think, much more to say concerning the digesting factor than there has been about the resistance factor since most research has been in the field of the mucosal attack.

Dr. Dragstedt teaches that the cause of duodenal ulceration is vagal-stimulated hypersecretion of acid and pepsin. Others have said that stimulation of the

central nervous system activates a humoral mechanism which raises the amount of gastric secretion and the quantity of acid and pepsin put into the gastric and duodenal lumina. Until relatively recently, I have been disappointed because there has been so little explanation of the localization of chronic peptic ulcer and of its failure to be more frequently multiple and, as far as I know, no elucidation at all of a reason why an ulcer does not enlarge to involve the whole stomach or duodenum. It has seemed to me that a proper theory of ulcerogenesis should attempt to explain the reason for local depression of mucosal resistance.

The idea that there is a quantitative or qualitative defect in protective gastric mucus has largely been given up. It never was an attractive theory to me because it did not explain why peptic ulcers are so seldom multiple. Yet, in the February, 1958, issue of *The Journal of Laboratory and Clinical Medicine*, Dr. Denko[3] reports an interesting study of the effect of cortisone and of hydrocortisone on the gastric mucus and on the connective tissues of the stomach. Previously, Dr. Denko had studied the fixation of radioactive sulfur (S^{35}) in cartilage. It seems that connective tissues in general actively incorporate into themselves S^{35} as chondroitin sulfate, which also is present in mucin.

In Dr. Denko's studies of the uptake of S^{35} by the stomachs of rats, hypophysectomized animals were used because they were found to be more sensitive to the corticoids than normal ones. Hydrocortisone in saline solution and radiosulfur were given intraperitoneally to one group of rats over a period of 4 days in doses similar to therapeutic ones in humans. Cortisone in much larger doses and radiosulfur were given in the same manner and for the same time to another group of rats. S^{35} in saline was given in the same way to a third group of controls. Let us consider the steroid treated groups as one, for the results were the same in both. On the fifth day the animals were killed and their stomachs were removed. Fifteen per cent of the animals which had received steroids had small gastric ulcerations. The group which had been given steroids showed a significant lowering of the amount of S^{35} fixed in their stomachs when they were compared to the controls. Dr. Denko believes that by inhibiting in a normal way the transfer of sulfur into the connective tissues and into the mucus of the stomach, the defenses of the gastric wall may be lessened by the adrenal steroids. And so we have a new idea about the manner in which the stomach's resistance to digesting gastric juice is broken down.

Dr. John Tilden Howard, assistant professor of medicine, Johns Hopkins University School of Medicine, delivered this address before the General Meeting of the Texas Medical Association annual session, April 21, 1958, in Houston.

Certain facts and some recent experiments concerning the causes of peptic ulceration are presented. The attacking acid-pepsin factor and mucosal resistance are considered. Studies on stress, hormonal factors, and psychosomatic aspects are described and emphasized as typical of the current trend in research.

That mucosal resistance may be lowered from local ischemia and hypoxia as a result of vascular lesions or of vascular activity or inactivity is certainly not a new idea. That is the common cause of the loss of superficial tissue by infection, trauma, tumors, and so forth. Yet the great vascularity of the gastric wall, one so extremely interconnected that there is no deleterious effect when two or three of the four main gastric arteries which supply the dog's stomach are ligated, has discouraged the investigator who has looked for a vascular cause of peptic ulcer. The arteries of the gastric and duodenal mucosae are not end arteries, as was formerly thought; we know now that the mucosal circulation makes the gastric lining similar to a sponge.

Rather recently a newly conceived theory of local ischemia and hypoxia has appeared. Barclay[1] and Barlow, Bentley, and Walder,[2, 9] and others have shown that there are arteriovenous communications of considerable caliber in the submucosal plexus of the stomach. These may provide a shunting mechanism which could short circuit the flow of blood away from the mucosa. The etiological idea is that under nervous or humoral stimuli, the shunts are opened so that an area of mucosa receives relatively little blood and may lose its resistance to the attack of acid and pepsin. It is well known that the gastric mucosa blushes and pales when it is observed in persons with gastric fistulas who are emotionally disturbed. It is conceivable that a shunting mechanism may be behind the changes of color of the stomach's lining. But it may rightly be asked, "Have you evidence that blood is shunted away from the mucosa in a single local area?" The answer is that I do not have such evidence and that I do not know for certain that anyone has it. Yet it is something that is being thought about.

RESISTANCE AND STRESS

Dr. Hans Selye,[8] whose investigative interests are so universal, reported in 1953 a study of the resistance of connective tissue to gastric juice under relatively normal conditions and under stressful

ones. He had wondered why gastric ulcers do not perforate more often than they do when they have no epithelial covering or known protection from the corrosion of acid and pepsin. He was inclined to the belief, I think, that gastric mucus and antiferments could not explain the resistance of the craters of ulcers to perforation. The experiments of Dr. Selye, to my knowledge, have not been confirmed or refuted, but I have thought them to be sufficiently interesting and dramatic to report here.

A number of rats were prepared for the experiment by having "granuloma pouches" formed in the subcutaneous connective tissue on their backs between the shoulder blades. Such a pouch was made by injecting 25 cc. of air into the subcutaneous tissues. Then into the bleb or blister of air 1 cc. of a 1 per cent solution of croton oil in corn oil was injected through the needle used to make the bleb. The needle was withdrawn, of course. After 10 days of local irritation, the blisters or pouches contained blood and an exudate with fibrin. The contents were aspirated and the sacs were washed with saline solution several times. Then 5 cc. of gastric juice which had been obtained from other rats was injected into each of the granulomatous cavities. Following the injection of the juice, the same volume of air was injected as that of the exudate which had been removed.

At the same time that the gastric juice was injected into the rats with "granuloma pouches," other rats, which had not been prepared previously, had 25 cc. of air and 5 cc. of rodent gastric juice injected at a similar site on their backs. So Dr. Selye had two groups of rats in the experiment, one with "granuloma pouches" that contained gastric juice and another group with air blebs or pouches which contained gastric juice.

Ten of the rats which had gastric juice in their "granuloma pouches" were subjected to stress by enforced fasting and by immobilization to boards; the immobilization caused some struggling and muscular fatigue. After a period of 40 hours of fasting and 24 hours of immobilization, the animals were released and were allowed to eat and drink as they desired.

In the group of rats which had no preparation of their backs for the reception of gastric juice and air, the skin over the blister or pouch was completely digested in 2 days so that a large dorsal ulcer remained. In the group which had "granuloma pouches" but which were not subjected to stress, the skin over the pouches was normal and the pouches contained the gastric juice which had been injected. The granulomatous wall showed no signs of damage grossly or histologically when the animals were killed.

Of those 10 rats which had gastric juice in their "granuloma pouches" and which had been subjected to stress, 1 died from the stress itself. This and the 9 other rats in the group showed at autopsy the lesions of stress in their adrenals and the gastrointestinal ulceration of Dr. Selye's alarm reaction, ulceration which occurs rather easily in rats, I believe. Six of the 9 rats with "granuloma pouches" which survived the stress had a breakdown of the granuloma wall with ulceration of the skin over the pouch. One might say that they had formed peptic ulcers on their backs.

Dr. Selye concluded that treatment with an irritant to a local area could induce resistance in connective tissue to the digestive action of gastric juice. But that resistance seemed likely to break down under systemic stress.

Could a similar mechanism produce weakening of mucosal resistance in us humans? From general impressions gained in my own practice I would answer, "Possibly—sometimes." And I would think of the many flare-ups of peptic ulceration which seemed to occur among the brokers of New York City in 1929 and 1930 and which made them travel to Baltimore to get advice about treatment or to have a short holiday from their clamoring clients. I would think about the business man in Brooklyn, who carried what I considered to be a healed ulcer. On hearing over the telephone that his wife, who had been spending the winter in Miami Beach, had been taken to the hospital there because of pneumonia, my patient caught an airplane without delay and flew to her bedside. As he bent over her to ask how she felt, he vomited blood on her bed. Yes, there is evidence that our gastrointestinal tracts are sensitive to many forms of stress which seem to be related to ulcerations as well as to the so-called functional disturbances.

ULCERATION IN MONKEYS

Monkeys have not been thought to be particularly susceptible to peptic ulceration. Ivy and Grossman[6] reported the gastric and duodenal findings at autopsy on several rather large series of monkeys used for experiments of varying kinds on their central nervous systems. It appeared that peptic ulceration was uncommon in these monkeys. Relatively recently Rioch, Mason, and associates[7] at the Division of Neuropsychiatry at Walter Reed's Institute of Research noted fortuitously in experiments on the effects of stress and anxiety in monkeys that many of the animals died of gastrointestinal lesions. These authors have in press a report of their fascinating studies.

These workers initially reported the somatic lesions found in a series of 19 rhesus monkeys which

were subjected to several behavioral procedures. The experiments were carried out with the animals gently restrained in plastic chairs to which they readily became accommodated. Control animals confined simply to such chairs for long periods without experimentation had remained normal in every way. The chairs were provided with facilities for self-feeding of a liberal and usual diet and for the collection of excreta, with attachments for the presentation of auditory and visual stimuli, for automatic delivery of a sugar pill as a reward, and for brief electrical shocks for punishment, and with a lever-operated switch directly in front of the monkeys. The animals were trained to press the lever to obtain a sweet, to avoid an electrical shock, or to receive some combination of pleasant and unpleasant events.

For example: When a monkey was obtaining sugar by pressing the lever, a clicking noise was started at intervals and continued for a few minutes. At the termination of the clicks, the animal received a slight electrical shock. It was not long before the monkey would stop working the lever for reward whenever the clicking began and he would show anxiety about the approaching trauma by trembling, by piloerection, and frequently by emptying his bladder and rectum. Had he worked the lever while the clicks were sounding, he would have received the same reward as before. There were other and more complicated emotional conditioning procedures. Furthermore, in 6 of the 19 monkeys electrodes were implanted permanently in various parts of the brain so that the animals could stimulate themselves if they wished by pressing the lever. As has been shown by others, such stimulation appears to be pleasant when the stimulus is in some locations; at least the animals press the lever rapidly. When the electrodes are in other locations, the animals seem to be indifferent to stimulation or find it unpleasant, and they do not use the lever.

Now, what happened to these monkeys? Eleven of the 19 died or became so ill that they had to be killed in from 2 to 17 weeks of experimental study. Generally, the animals appeared to be well until from 12 to 72 hours before their deaths. In every one of the 11 who died, the principal disease was in the gastrointestinal system. In 4 there were extensive hemorrhages and/or erosions of the stomach. In 5 animals there were well developed duodenal ulcers within 3 cm. of the pylorus—2 of these ulcers had perforated and all had progressed through the submucosa into the layer of muscle. Another animal showed at necropsy a stellate scar in the proximal duodenum. One monkey died of intussusception. Two had an ulcerative colitis for which no parasitic cause could be found. If these lesions are added, one will note that there are 13 of them; obviously 1 or 2 of the 11 animals had more than one lesion.

These findings were so impressive that Dr. Rioch and his co-workers have begun a second series of experiments in which the effect of a single behavioral procedure on the gastrointestinal tract is studied with almost perfect control. Into each of two chairs of the type which has been described, a female monkey of closely corresponding size and weight has been placed. There is a short training period in which periodic electrical shocks (announced to the animals by the appearance of a red light) can be avoided for 20 seconds by pressing a lever. In the period of training both monkeys have before them levers which will delay the electrical shocks. In the "preliminaries," one monkey of the pair is found to be a better lever-presser than her partner and she is selected as the experimental animal. Then the second monkey becomes the control animal and her lever is disconnected and is completely useless as far as delaying electrical shocks is concerned. In the experiment the red light comes on and soon the shocks follow. The experimental animal is able to prevent them for herself and for her partner by pressing her lever at least once every 20 seconds. This is done so effectively that the average rate of shocks has been less than one an hour. The red light remains on and the shocks are potentially present for 6 hours. Then the light is extinguished and the animal which is doing the work of protection is allowed to rest along with the relatively indolent partner. Food is taken in the 6 hours following potential shocking, and then the active part of the experiment is resumed as before. Throughout the experiment the urine is collected continuously and the excretion of 17-hydroxycorticosteroid is determined.

In a forthcoming paper, the workers at Walter Reed will report the results of two such experiments as I have described. The 24 hour excretion of 17-hydroxycorticosteroids was not increased strikingly though abnormal fluctuation within the 6 hour periods may have occurred. Both of the experiments to be reported terminated in the death of the experimental animal which might be called the responsible monkey or the "executive" of the experiment. The first monkey died on the twenty-third day of responsibility for keeping away electrical shocks; the "executive" of the second experiment died on the twenty-fifth day. The first "executive" died from a perforated duodenal ulcer; the responsible monkey in the second experiment showed at postmortem examination an erosion 4 mm. in diameter in the duodenum 1 cm. below the pylorus; this had penetrated only to the muscularis. There was acute inflammation and edema around the erosion; it might have caused obstruction, for the stomach was distended and filled with undigested food and the animal had eaten poorly and vomited once in the

3 days before its death. The control monkeys were killed immediately on the death of their partners, and no disease was found in them. Certainly the electrical shocks were not responsible for the lesions. They were kept minimal in number by the working monkey, and the number of shocks received by each animal was identical.

Dr. Rioch and his fellows are planning to study the gastric contents of these monkeys, to measure the uropepsin and the serum pepsinogen, and to run fractional determinations of corticosteroid excretion in future experiments. Speculation may make one say, "Much may come of this." The scientists who are soon to publish these experiments are exceedingly careful to limit their conclusions to facts, and they do not imply that what happens in their monkeys is similar to what goes on in man when an ulcer is formed.

HORMONAL FACTORS

How does stress work on our upper gastrointestinal tracts? Much of it is undoubtedly mediated through our vagi, which stimulate the secretion of acid and increase the motor activities of our stomachs and duodenums. Yet there appears to be also a hormonal mechanism which is associated with the adrenals and with the general adaptation syndrome. Dr. Seymour Gray[5] and his co-workers have produced evidence that stress, emotional or physical, activates the secretion of acid and pepsin by a hypothalamic-pituitary-adrenal-gastric system. These workers believe that the administration of ACTH or cortisone over a long period will augment greatly the output of acid and pepsin in normal persons and simularly will increase the secretory rates of patients with chronic duodenal ulcers. Dr. Gray thought that this hypersecretion was not affected by vagotomy. Dr. Dragstedt and others have not confirmed Dr. Gray's findings of a great hypersecretion of acid and ferment under similar stimulation. Most physicians agree, I believe, that there is no good evidence of adrenal hyperfunction in our patients with uncomplicated peptic ulcers. Yet most of us will concur in the idea that steroid therapy frequently reactivates old ulcers and perhaps causes new acute ones. Though there are statistics which contradict that impression and which tend to show that the incidence of steroid-induced ulcers does not exceed the usual frequency of the disease in populations, I doubt them. It is my unscientific impression that in some way the corticosteroids "soften-up" the mucosa of the stomach and duodenum to digestive attack.

Here, in the discussion of possible humoral factors in the formation of peptic ulcers, must be mentioned the marked hypersecretion and the concomitant extensive ulcerations which occur in patients who harbor noninsulin producing, nonbeta cell tumors of the pancreas. In these persons vagotomy does not lower the gastric acidity. Ellison[4, 10] and Zollinger[10] thought that glucagon from pancreatic islet cells might produce the tremendous acidity, but that idea has not gone uncontradicted. Yet we safely may say that a pancreatic tumor of nonbeta cell type is a rare cause of peptic ulceration.

PSYCHOSOMATIC ASPECTS

Everyone has heard and, perhaps, has smiled when the psychosomaticists have said, "It is not the ulcer that makes one ill; one has an ulcer because he is ill." And generally they are referring to some emotional difficulty with which the patient with an ulcer struggles so often, to his personality, and to his background.

In 1953, Dr. Gerdt Wretmark[11] of Lund, Sweden, published the best observations from a psychiatrist's point of view on patients with peptic ulceration with which I am acquainted. He called his monograph "The Peptic Ulcer Individual: A Study in Heredity, Physique, and Personality." His patients were divided into two groups; one was obtained from the general population and the other from patients attending a psychiatric clinic, so that all those in the second group had some degree of neurosis. In the first group, he had 130 patients who had or had had a duodenal ulcer, 34 who had or had had a gastric ulcer, and 169 controls. The controls were unique in that they were selected from the local registry of births and were generally born on the same day as the persons with ulcer. In the neurotic group there were 96 duodenal ulcers, 32 gastric ulcers, and 138 controls, who were born within a 5 year period after the birth date of the ulcer-patients.

Dr. Wretmark confirmed our generally accepted concept of the role of heredity in peptic ulceration. He said that ulcers occurred more often in fathers, mothers, and brothers of a person with that condition than in the general population. Duodenal ulcer showed a greater tendency to familial occurrence than did gastric ulcer. Further, when duodenal ulcer ran a serious course, familial occurrence was likely to be pronounced. Dr. Wretmark also found that in patients with duodenal ulcer there was, as he put it, "a preponderance of vertical over horizontal growth and the more tall and narrow the body-build, the worse the course."

In the field of personality, Dr. Wretmark concluded, on the basis of psychiatric interviews and statistical analysis, that persons with duodenal ulcer were more often of superior intelligence than con-

trols. No such trend was found in the group with gastric ulcer. Also, the patients with duodenal ulcer tended to be cold and aloof, abstract in their thinking, and introverted. Patients with gastric ulcer did not show these psychic traits to a remarkable degree. Still further, the investigator concluded that the personalities of patients with duodenal ulcer showed insecurity, indecisiveness, excessive caution, nervousness, and ease of fatigue. Again, the patients with gastric ulceration did not show these traits in any way that differed from the controls. Lastly, the duodenal ulcer patients were found to be artistic, subjective in their feelings, and imaginative in the manner of actors. I am inclined to believe that Dr. Wretmark described well in a general way the type of person who gets an ulcer.

We clinicians recognize hereditary, constitutional, personality, and psychic factors in our patients who have peptic ulcers, and the researchers sometimes confirm and sometimes weaken our speculations about the etiology of that condition. In general, the present trend of thought and of experimentation is toward or in the psychosomatic field though I am not certain that that is the proper direction or place for it.

James Lind, the physician, in 1753 in his "Treatise on Scurvy" recognized that fresh vegetables and fruits were important in curing that disease. Yet he was led somewhat astray by irrelevant observations. We know now that ascorbic acid prevents and cures scurvy; in these times that is all that is really needed. But Dr. Lind wrote, "The passions of the mind are experienced here to have a great effect. Those that are of a chearful and contented disposition, are less liable to it, than others of a discontented and melancholy mind."

It has been my secret and almost desperate hope that some single factor will be found which will increase mucosal resistance and so enable us to control peptic ulceration. If that comes to pass, our psychosomatic concepts of ulcer will be like those of Lind—of historical interest only.

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Mismanagement Of Carcinoma Of the Cervix

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CANCER OF THE CERVIX can be eradicated. Although more than 35,000 women die each year in the United States of this disease, no stage of this cancer is without hope for cure.[3] As long as the cancer is limited to the cervix or is in the immediate vicinity of the cervix 8 out of 10 patients can be cured. Even in late stages of the disease when the cancer has extended to the pelvic wall, 1 out of 3 or 4 can be cured. Figure 1 illustrates two points:

Dr. Felix N. Rutledge and his co-author submit this paper from the Department of Gynecology, University of Texas M. D. Anderson Hospital and Tumor Institute and the University of Texas Postgraduate School of Medicine. It was read before the Section on Obstetrics and Gynecology at the Texas Medical Association annual session April 22, 1958, in Houston.

Cancer of the cervix most often is mismanaged because of missed or delayed diagnosis and haphazard treatment. Observation, palpation, and biopsy are important. Once diagnosed, the lesion should be treated only after careful evaluation of the extent of the tumor, the potential spread, and the need of destroying or removing the growth without unnecessary injury to other pelvic structures.

(1) early diagnosis is extremely important, and (2) even in advanced stages cancer of the cervix often can be cured.[1] While we continue to search for the cause of cancer, and likewise for its prevention and cure, we must continue to use the methods of treatment that we now have at our disposal.

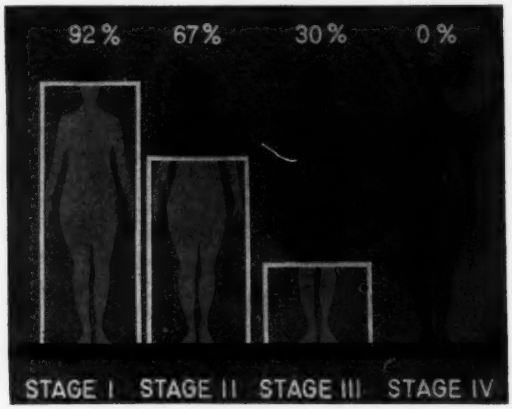

Fig. 1. Five year survival rates with four stages of carcinoma of the cervix.

This discussion will point out how more patients can be diagnosed and brought to treatment early. The harm that can result from inadequate treatment will be emphasized.

Mismanagement is most often manifest by these two common mistakes: (1) missed or delayed diagnosis and (2) haphazard treatment.

MISSED DIAGNOSIS

Much time and money has been spent in the United States during the past several years describing to the public the symptoms of cancer. The female patient is advised to have periodic examinations even if there are no symptoms. The campaign has been actively supported by physicians. In many sections of the country this drive for earlier diagnosis has been successful. In other areas the results have not been as good as might be expected. In Texas the response has been relatively poor, and as a result we are not treating as many early cases as we should. Table 1 compares Texas (Houston area) with other cancer treatment centers with reference to percentages of the four stages of the disease that are treated.

Even after the patient has presented herself for examination the diagnosis is often missed. Why is the diagnosis of cancer not made? Very often the disease is overlooked because someone failed, for one reason or another, to examine the patient. Cervical carcinoma is a lesion which develops in a place that we can see, palpate, and biopsy without significant discomfort to the patient. Therefore, there is no real excuse for not carrying out a full regimen for diagnosis.

To diagnose cancer of the cervix no elaborate equipment is needed. Figure 2 shows a simple group of instruments used for examination and biopsy:

1. A vaginal speculum for exposing the vagina and cervix.

2. A tenaculum for grasping the cervix, which may not be needed in all cases.

3. Uterine packing forceps for sponging the vagina and inserting the tampon.

4. A uterine sound used to probe the uterine cavity to estimate the depth, size, and configuration.

5. An endometrial biopsy curette. The patient should be warned that she will experience momentary abdominal cramping when the endometrial biopsy specimen is taken in the physician's office.

6. Schiller's stain. This nonirritating iodine solution is prepared in the following manner: iodine, 1 Gm.; potassium iodide, 2 Gm.; and water, 300 ml. It is best applied liberally over the cervix and vault of the vagina by means of a long eye-dropper or an atomizer. Only those healthy cells that contain glycogen will take up the stain, and they may be identified by a mahogany color. There are other diseases of the cervix that will cause the cells to fail to stain, but in any case, the colorless sites should be subjected to biopsy.

7. A cervical biopsy forceps. If we compare the cervix to the face of a clock which faces the examiner, good bites of the cervix are taken at 12, 3, 6, and 9 o'clock. These biopsy specimens are taken as close as possible to the squamo-columnar junction.

8. A formalin bottle. Biopsy specimens are placed immediately into the solution; the bottle is labeled and dispatched to the pathology department.

9. A tampon. The tampon pictured is a lamb's wool tampon that is very effective. It does not soak up moisture and maintains hemostasis by pressure. However, any commercial type can be used and occasionally more than one is needed. The patient is instructed to remove the tampon in 24 hours.

TABLE 1.—*Comparison of Treatment Centers as to Stages of Cervical Cancer Observed in Patients.*

Locale	Stage of Disease			
	I	II	III	IV
Paris (Rad. Inst.)	19.6	58.3	20.6	1.5
Birmingham (U. K.)	20.5	48.5	22.6	8.4
Baltimore	27.9	29.9	32.2	10.0
Boston	36.1	43.2	17.5	3.2
New York	32.9	36.9	28.2	2.0
Copenhagen	15.6	49.8	26.7	7.9
Houston (MDAH)	11.0	43.0	35.0	11.0

Care should be taken to avoid cauterization of the cervix, either by silver nitrate or by electrocautery. The cellular architecture is distorted with cautery, and small foci of invasive cancer may be hidden or destroyed. If subsequent biopsies are necessary, valuable pathologic information may be lost. It should be emphasized that this is an examination and biopsy that can be done in the physician's office.

The physician should not delay the pelvic examination and biopsies because of vaginal bleeding. Furthermore, it is a procedure that can and should be done during pregnancy, omitting of course the intrauterine probing and endometrial biopsy. Suspicious lesions of the cervix certainly should be examined microscopically and this can be done without jeopardizing the pregnancy. Obstetricians and family doctors have the best opportunity to diagnose cervical cancer inasmuch as they have chances to inspect the cervix frequently. Many physicians routinely ask their obstetrical patients to return not only for a 6 weeks postpartum pelvic examination, but also to return at 6 months. This is an excellent practice.

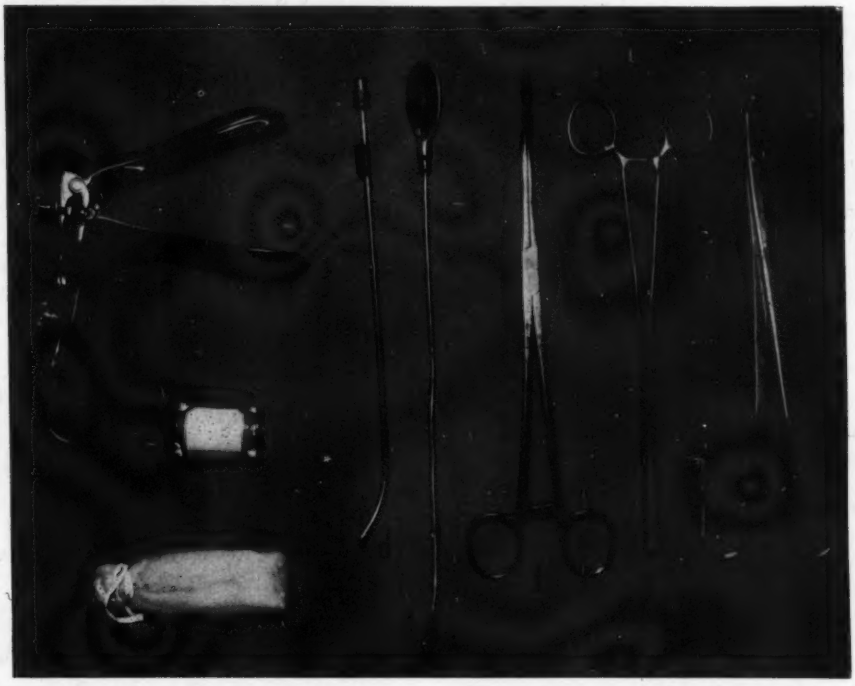

Fig. 2. Instruments used for examination and biopsy of the cervix: **(a)** vaginal speculum, **(b)** formalin bottle, **(c)** tampon, **(d)** endometrial biopsy curette, **(e)** uterine sound, **(f)** uterine packing forceps, **(g)** tenaculum, **(h)** cervical biopsy forceps.

HAPHAZARD TREATMENT

The physician who undertakes the primary treatment of the patient with cancer of the cervix often has a wonderful opportunity to arrest the disease. However, he may actually shorten the patient's life by employing well meant, but ineffective treatment. There are many diseases that can be treated several times or the treatment changed. With cancer it is the maximum effort when the disease is first treated that affords the best chance for cure. The maximum effort involves considerable cooperative planning between the pathologist, the gynecologist, and the radiotherapist. This group can achieve relatively good results by intensive treatment with various combinations of radium, roentgen ray, and surgery. Only pitiful results can be obtained if the patient previously has undergone some type of inadequate surgery. Treatment must be governed by careful pretreatment evaluation of the extent of the tumor, a thorough understanding of the potential spread, and the basic need of destroying or removing the growth in its entirety. This must be done without unnecessary injury to other pelvic structures.[2]

INADEQUATE SURGERY

During the 5 year period September 1, 1952, through August 31, 1957, there were 1,202 cases of carcinoma of the cervix seen at the University of Texas M. D. Anderson Hospital and Tumor Institute. Three hundred seventy, or 30.8 per cent, had received some type of surgical operation; simple total hysterectomy was the type most often employed (table 2). There were 69 hysterectomies done, 57 of which were simple total, 9 subtotal, and 3 radical hysterectomies. Five of the 9 patients with subtotal hysterectomies had a proven carcinoma of the stump, by biopsy, within a year after the partial hysterectomy. These 5 patients were considered as having had carcinoma of the cervix at the time of operation and are included in the study; the radical hysterectomies are excluded. This study therefore covers 62 patients with invasive carcinoma of the cervix in which incomplete surgical procedures were done. Of these 62 cases, 41, or two-thirds, had no diagnosis of malignancy prior to operation, and although these patients had definite symptoms of cancer, no attempt was made to establish the diagnosis. The data summarizing these 62 cases are shown in table 3. Of the 30 patients who have died, the oldest was 67 and the youngest 26 years of age. The average age of this group was 47.2 years. The longest survival was 9 years; 1 patient died 1 month after operation with massive disease, and the average survival after incomplete surgical procedure was 2 years 1 month.

TABLE 2.—*Previous Treatment Received by 370 of 1,202 Patients with Cervical Cancer Who Had Undergone Surgery.*

Treatment	No. Patients
Surgery only	99
Surgery and radium	67
Surgery and cautery	5
Radium only	143
Radium and cautery	7
Cautery only	24
Surgery, radium, and cautery	1
Endocrine therapy (hormones)	2
Other treatment	17
	370

TABLE 3.—*Results in 62 Patients with Cervical Cancer on Whom Inadequate Surgery (Simple Hysterectomy) Was Done.*

Total number		62
Oldest	67 years	
Youngest	26 years	
Average age	47.2 years	
Living		31
Lost to follow-up		1
Died		30
Maximum survival	9 years	
Minimum survival	2 months	
Average survival	25 months	

DISCUSSION

Although rather definite symptoms of carcinoma were present in these patients, only about one-third had a diagnosis of invasive carcinoma prior to surgical operation. We believe that before elective hysterectomy is done, biopsies of the cervix or cytology smears should be done to rule out cervical cancer. When one is faced with any abnormal bleeding, a dilatation and curettage also should be done and the pathologist's report at hand before hysterectomy is planned.

With or without a preoperative diagnosis, simple hysterectomy in these cases does the patient a great disservice for these reasons:

1. Treatment of the disease is made more difficult and less effective. Rational treatment depends upon an accurate clinical staging of the extent of the disease. No evaluation of the extent or spread of the tumor can be made on patients who have undergone hysterectomy. It must be remembered also that even in those cancers apparently localized to the cervix, International Classification stage I, that 15 to 20 per cent of these patients have microscopic metastatic disease in the regional lymph nodes. The difficulty in treating this metastatic disease after hysterectomy is pointed out in figure 3. Effective radium therapy can not be given the regional lymph nodes after hysterectomy. Therefore the belief that inadequate operation can be corrected by a "little x-ray" is not completely true.

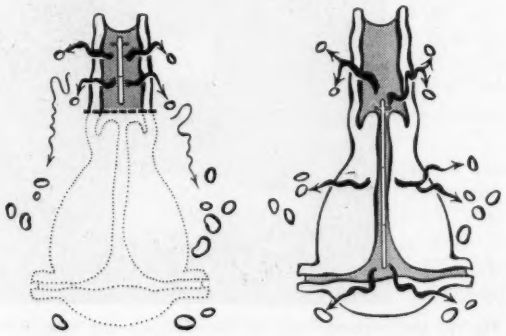

Fig. 3. Prior to hysterectomy **(left)** radium therapy can reach regional lymph nodes to combat metastasis with little difficulty, but after hysterectomy **(right)** the problem is more difficult.

2. Surgery potentiates the spread of the tumor. When invasive carcinoma is cut across, spread of the tumor cells is actually hastened. The attendant edema, cellulitis, and blood vessel engorgement contribute to the spread. The same processes that appear to favor the spread of cervical cancer during pregnancy appear to apply following incomplete surgical removal of tumor. The preferred treatment of invasive cancer of the cervix is primary radiotherapy. Surgery has a definite place in the management and treatment, but only in carefully selected cases. Incomplete surgery, such as simple hysterectomy, not only fails to cure the patient, but actually shortens her life considerably. In many instances the primary cancer is not completely removed, and in addition, distant metastases may be present at the time of surgery. The following case report is typical of this harmful procedure.

A 43 year old Negro woman was referred to the University of Texas M. D. Anderson Hospital and Tumor Institute following hysterectomy in another city. The pathologic diagnosis on the surgical specimen was carcinoma of the cervix uteri, squamous, invasive. This patient was gravida 4, para 2, with a history of vaginal bleeding for 2 months. A pelvic examination was done; she was told that she had a "tumor," was admitted to the hospital for total abdominal hysterectomy, then referred here. On examination 2 months after surgery this patient was found to have metastatic disease in the right middle lobe of the lung. It is considered likely that this patient had a late stage III or stage IV lesion at the time of surgery.

In other cases, although symptoms rather clearly indicated malignancy, surgery was done and the diagnosis made postoperatively from the surgical specimen.

A 55 year old white woman consulted her physician because of postmenopausal bleeding for 2 months; she was examined but no biopsies were done. The bleeding continued daily 3 months after the visit to her physician. Five months after the onset of her symptoms, without benefit of biopsy or cytology smear, she was admitted to the hospital and total abdominal hysterectomy performed. The pathologic diagnosis in this instance was squamous cell carcinoma of the cervix, extending to the line of surgical resection posteriorly and involving the anterior vaginal cuff.

SUMMARY

As we anxiously and hopefully await for research to reveal the cause and eventually better therapy for cancer, we must continue to use that treatment available to us at the present time. Furthermore we must make every effort to apply such treatment rationally and effectively. The cure rate of cancer of the cervix can be improved if more cases are brought to treatment in early stages. The cure rate can be improved if haphazard treatment is avoided.

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An Introduction To the British National Health Service

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GREAT BRITAIN'S National Health Service is what we know as socialized medicine, the government owned and operated complete medical program for each individual from birth to the grave. For 2 years I lived in London and worked full time in the framework of the National Health Service, as a thoracic surgery registrar and as Sir Russell Brock's assistant at Guy's Hospital and at the Brompton Hospital in London. These proved to be 2 rewarding years for me in the field of cardiac and thoracic surgery. No matter what one feels concerning the system of medical care, it has become by its very nature an outstanding postgraduate training program. Though it leaves much to be desired, particularly for the general practitioner, on the whole it has worked well in supplying highgrade medical services for every citizen, and this of course was its avowed purpose.

The origin of the National Health Service has its roots in the National Health Insurance Act passed by Lloyd George's Liberal government in 1911. This provided that each working man, on payment of a small, compulsory, weekly insurance levy, would be entitled to receive treatment and medicine from his doctor without further payment of a fee. The doctor in return was paid a capitation fee, an annual sum of money whether or not the working man was ill during the year. The present

generation of physicians thus grew up in an atmosphere of state medicine.

The National Health Service Act of 1946, which went into effect July 5, 1948, extended these benefits to the whole population of Great Britain, but it was more far-reaching than just that. On that date, 3,426 hospitals, clinics, and convalescent homes passed from the control of their own boards to that of the government. Approximately 90 per cent of the doctors eventually agreed to work under the plan, and 94 per cent of the dentists. This, of course, was not due entirely to a real desire to do so, but because

Dr. Robert H. LePere, who is a thoracic surgeon in San Antonio, spent 2 years as a thoracic surgery registrar in London. He presented this paper for the Victoria-Calhoun-Goliad Counties Medical Society in Victoria, August 28, 1958.

Great Britain's National Health Service furnishes complete medical care to the entire population. For a small compulsory levy, persons may enroll under a general practitioner, obtaining service from him 24 hours a day without further charge. The average English physician has difficulty finding a position, works long hours, sees a large number of patients, and achieves a relatively low income.

opportunities for private practice became sharply curtailed by the heavy proportion of their patients who sought care under the plan—95 to 98 per cent of the population. The service is administered by the Minister of Health, who is advised by a 41 member Central Health Services Council, of whom 21 are medical practitioners. It covers all medical, dental, hospital, ophthalmic, rehabilitation services, and the like. There is a standard 1 shilling (14 cents) fee for a prescription, drugs otherwise being free to the patient.

HOW SYSTEM WORKS

The individual chooses a general practitioner and enrolls as his patient for which he is entitled to medical service 24 hours a day without payment of any additional fee. This is one of the real abuses of the service—the physician being required to see the patient whenever he calls, the only restraint being the patient's conscience.

Medical care for the patient, though often impersonal, is generally good; aside from the long waiting lists for routine hospital admission and the lack of convenience, there is little complaint. About 5 per cent of the population still call in a private physician at times and undoubtedly more would do so if they did not feel they had to pay for the Health Service anyway. Stoical acceptance seems to be almost a national characteristic, and it helps the service run more smoothly. Of all the British patients referred to our thoracic surgery service, I hardly recall a patient refusing to follow the recommendation which was made. Of the multitude of British citizens on whom I operated many did not know my name beforehand or anything about my background or training in thoracic surgery. Such a thing is unlikely to happen in this country. Here, many of my private patients consult *Reader's Digest* before accepting a recommendation!

Initially, the doctor was allowed to decide whether or not he would join the Health Service and whether or not he wanted to be full time, that is, how much private practice he wanted to do on the side. Generally, most prefer to be nine-elevenths on the National Health Service, leaving two-elevenths of their time for private practice, of which there is generally not more and usually much less. Most of the private practice of course goes to the men with the biggest names in their respective fields.

Sir Russell Brock draws his patients not only from England, but also from Europe, the Middle East, and the reaches of the British Commonwealth. His practice, however, is the exception. Most young new entrants in the Health Service are pleased to see a half dozen private cases a year.

LOW SALARIES; MANY PATIENTS

The general practitioner has become overloaded by sheer weight of numbers in that his income, with the exception of a 300 pound basic salary, comes from a fixed 1 pound fee for each patient on his roll; the more patients, the more he makes. The more his rolls increase, the less able he is to devote enough attention to any patient and the more he becomes just a clearing station for the specialists and the hospitals—in effect increasing the cost of the National Health Service. This is another of the pitfalls of the service, but the general practitioner is not to blame. He is fighting for his very existence as a member of the middle class. The ordinary general practitioner who lives in and around London has a cost of living almost equal to ours here in Texas, which I can verify from experience. However, his maximum income per year as a full time participant in the Health Service is likely to be no more than $6,000 to $7,000 for a 60 hour week.

An English friend of mine is a general practitioner in Surrey. He is married, has a home, and three children. He and his partner together have 5,000 patients on their roll. At a pound a head this

is $14,000; divided in half, $7,000 a year to each plus the $840 basic pay, giving him a yearly income of $7,840. However, he does get an additional mileage allowance for his 6 year old car. He gets 4 weeks' vacation a year, retirement benefits, and, if he is ill, health insurance benefits. For a professional man to run an office, keep a family, and educate his children out of $7,840 is just as hard in England as it is here. One more item must come out of his salary, the income tax, which is much heavier than what we pay. If he works unceasingly, gets all the breaks possible, and is able to collect the maximum of 4,000 patients on his individual roll, he could then make $12,840 a year. However, this for most general practitioners will be forever in the realm of fiction. Only 25 per cent of them have as many as 3,000 patients.

DIFFICULTY OBTAINING POSITIONS

The consultants have a generally better position, better hours, and similar pay. However, their deprivation along the way is all but unknown in this country. The registrars (residents to us) and all graduates of medical schools, whether they go into a specialty or into general practice, must await a vacancy, for all jobs are government jobs and are filled. Unless a doctor dies or retires or a new post is created there is no place for the new doctor to practice. So he goes into hospital training or becomes an assistant to a general practitioner and awaits a vacancy. It now is estimated that there are between 20 and 30 applicants for each vacancy which occurs. Salaries for a hospital intern or registrar begin at $2,200 and go to $4,000 maximum for a senior registrar. This salary is not bad for a doctor in training, but it gets old after 8 or 10 years working full time for the Health Service. Two good friends of mine were both thoracic surgery registrars. One had been in hospital training for 14 years, the last 5 years having been spent in the hospital only because there was no other place to go. He was 41 years old, had a wife and two nearly grown children. The other got a consultant post in thoracic surgery at the age of 43, because of his age getting a better salary than most—$6,160. This is an incalculable waste of lives, talent, and productivity. This, to me, is another great error in the Health Service.

The consultant when he finally gets an appointment generally starts at around $5,600 a year and can rise to a maximum of $8,400. He may do what private practice he can find. In addition, there are available "distinction awards" given on a permanent basis for outstanding work. This will add $1,400 to the basic salary of 1 consultant in 5; $4,200 to 1 in 10; and $7,000 to 4 in every 100. Thus, it is possible for those 4 out of 100, presumedly Britain's greatest men of medicine, to achieve a measure of financial independence on a salary of $15,400. The great majority of consultants, however, will continue to make less than $10,000.

The Economist, January, 1956, revealed that whereas the average weekly wage earner was getting three and a half times what he earned in 1938, the professional classes were 15 to 30 per cent poorer—this in a country which was on the average 7 per cent richer. An editorial in the *British Medical Journal,* February, 1956, stated, "Doctors . . . are in a grave economic dilemma, so grave indeed that the professional classes as a whole could be excused for believing that their way of life is coming to an end within a measurable period of time."

COST OF SERVICE

The original estimate of the cost of the Health Service for the first 9 months of operation in 1948-1949 was $560,000,000; the final cost proved to be $778,000,000. The estimate for the next year was $728,000,000, and the final cost totaled $1,005,000,000. And so it has gone. This year the estimate is $3,072,000,000, and again it will be even more. More than 80 per cent of the cost of the Health Service is financed by general taxation. Less than 5 per cent comes from direct payments from those using the service and the insurance contribution is a flat rate, each person contributing 26 cents a week with his employer contributing 6 cents. It will be seen that as taxpayers they pay most and as rate payers least.

In an article in the *British Medical Journal,* December 7, 1957, entitled "The Price of Freedom," Sir Francis Walshe wrote of the Health Service, "Nor dare we hope that we have reached the limit of imprisonment within this fantastic administrative machine, for the shadow of a fully paid State Medical Service looms over us, with all that it implies of helotry for us and of the dehumanizing of medicine for our patient." I trust that no American physician ever need echo this statement.

♦ Dr. LePere, Nix Professional Building, San Antonio.

Majority Have Health Insurance

More than 5,370,000 persons in Texas now are protected by some form of insurance designed to help pay hospital and doctor bills, according to the Health Insurance Council. The number of people covered by some form of health insurance in the nation, according to the council, is now approximately 123,000,000 or 72 per cent of the total population in contrast to 4,876,000 in 1956.

Scientific Practice Of Public Health

E. G. McGAVRAN, M.D., M.P.H., D.Sc.

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THE CONCEPT of public health as the scientific diagnosis and treatment of the health status and needs of communities has been discussed in two previous papers.[1, 2] This concept has been presented as a normal evolutionary development of health science that states the limitations, the competence, and the body of knowledge of a distinctive profession, public health. This concept calls for a team of professional equals from many different disciplines who become the "doctor" of the body politic.

Also presented has been the challenge to the young medical recruit and to all public health people to explore the virgin territory of community research with its unlimited promise to human welfare.

This concept is acceptable to the private practitioner of medicine because it leaves the physician eminent in diagnosis and treatment of individuals and gives public health practice a new patient, the community.

Also discussed have been some of the responsibilities that fall on public health personnel as we think of the community as our patient, the responsibility to determine our community patient's needs before we start treating him with programs and activities, to determine the effects of our prescribed treatment before continuing the same treatment, and to treat our community patient in the same way we expect the good family physician to treat his individual patient.

The evidence has been presented that control or conquest of disease takes place only as we approach disease as a community problem, only as we change the environment or reaction to the environment, that early diagnosis and treatment of disease has never proved an effective control measure, and that we therefore must concentrate our efforts upon community approaches if we expect to control the chief causes of illness and death.

INTELLIGENT OUTLOOK

The community or public health approach must be intelligent and scientific. The practice of public health is not enough; it is the scientific practice of public health to which we must aspire. I say aspire because we never reach goals, the ultimate refinement of scientific practice, in any profession. There are many reasons for this. Progress is so rapid that it is difficult to keep up with it. It is difficult for us to change traditional patterns and practice even when we know they need change, and the patient, the community, also clings to traditional, tried procedures and resents change. But most of all, we do not practice as scientific medicine or public health as we know how to because of inadequate time, personnel, and facilities. The physician with 40 people waiting in the reception room at 4 p. m. knows he cannot give each one of them the time necessary to practice scientific medicine, but he also knows that unless he does keep up the scientific approach for at least a few of his patients he soon will become a pill peddler. This is a lesson for public health. Short staffed, short of funds, with excessive demands, bound by legal requirements and the things we must do, we find it easy to skip the scientific process all the time, and we too become program peddlers, empirical quack doctors of the body politic.

It is even more difficult for public health practitioners in some ways to do scientific practice because it is so easy to change the focus from the community to the individual and to practice medicine, not public health. Work in clinics is frequently such an escape mechanism. It need not be, but it can be. We can avoid the difficult diagnosis of complex community needs by serving the individual clinic patient, be it well child, venereal disease, or tuberculosis. Perhaps no one can prove it, but we must not kid ourselves by masquerading under public health practice when what we are doing is medical practice. It is easy to change focus without even realizing it.

The only way to practice scientific medicine or public health is to take time to do scientific practice at least some of the time and as much of the time as possible. There are techniques that help us. In medical practice we learned early in our medical

Dr. E. G. McGavran, Dean, School of Public Health, University of North Carolina, Chapel Hill, presented this paper before the Texas Medical Association, Section on Public Health, April 22, 1958, in Houston.

This final paper of a series on the community as the patient of public health emphasizes the need for a scientific approach in diagnosis and treatment. As for an individual, desire for help, superficial observation of the patient, patient's opinion, the record, history and physical examination, tentative diagnosis, special studies, written diagnosis, prognosis and priorities of prescribed treatment, and follow-up and evaluation are important to the community.

school and intern days to follow a prescribed form. The history and physical examination form is part of this technique. The prescribed form for the community patient is similar indeed to that which we have learned to use for the scientific diagnosis of the individual patient.

Let me demonstrate the steps in the scientific diagnosis of the community patient.

SCIENTIFIC DIAGNOSIS AND TREATMENT

Granville County is a small rural community in North Carolina. I took four students and an instructor to Granville County at the request of the health officer. The first step, a desire for help, had been accomplished before we arrived. Not only the health department, but the community wanted assistance in studying and solving its health problems. The second step, observation of the patient, and the third step, patient opinion ("chief complaint"), are automatically carried out by good physicians. We frown on "telephone diagnosis." The same is true for our community patient. Steps two and three were done superficially over a 2 day period. We drove all over the county visiting farms, homes, schools, and agencies observing many health aspects of the community patient, talking to leaders, to farmers, to housewives, and so forth, and we learned that the chief complaint, the chief health problem which concerned them was tuberculosis.

At this point we turned to the fourth step, examination of the record. What data were available? What did they show? What did they mean? We charted tuberculosis death rates for 5 years in Granville County against the state tuberculosis death rate. Why do we always chart the temperature, pulse, and respiration upon a hospital record? Because the mere figures do not visualize the story for most of us. Similarly, though Granville County knew the figures, its people did not see the story until it was charted. Then it became obvious to them that tuberculosis was not a major problem but an average problem, about the same as the state problem, with decline identical to the state. Furthermore, when the high 50 per cent Negro population in Granville County was considered, it was in reality better than the state rate. Similar charts prepared on infant and maternal mortality clearly indicated that infant and maternal death rates were much higher than state and national rates and, therefore, should have been of much more concern. This was important to the health department because the community's chief complaint, tuberculosis, had been taking too large a percentage of health department time and activity.

Next a simple chart was prepared to show the percentage of minimal tuberculosis reported. From this chart it was clear that one of the problems in tuberculosis control was late reporting. Two-thirds of the cases of tuberculosis were not reported until an advanced or far advanced stage of the disease existed. Efforts at early case finding, therefore, were justified. But again, compared to average practice in North Carolina and in the United States, this was not a bad record. It was a little better than average.

The death and case rate factors were studied. Granville County was aware that the death rate among Negroes was seven times as high as among whites and, as a result, had concentrated case-finding efforts among Negroes without too much success. The prevalence or case rate had never been charted. When case rates were studied, it became clear that if one is looking for tuberculosis cases at any point in time one will find more in the white than the Negro population. Death rates are a study of dead people, and case finding is not done in a cemetery. It was obvious, therefore, that there was no justification for concentration of case finding in the Negro population and that Granville County should have been doing mass roentgen-ray surveys, tuberculosis testing, and other case-finding procedures for both races.

The age distribution was studied and analyzed. A simple technique of charting incidence against expected incidence was used. Expected incidence is estimated conservatively as 10 cases for each death. Today this figure is more like 20 to 30 cases per death, but we chose to use the conservative traditional figure of 10 cases per death. It was obvious from the chart that during the young adult age, Granville County was finding more tuberculosis than was expected, but that from 45 on, where tuberculosis is six times as prevalent as in the young adult age, the health agencies were missing a vast majority of the cases expected. The Granville County people were concentrating their case-finding program on the young adult. This simple chart on their own data enabled them to see that this was the least productive area for case finding, and enabled them to concentrate upon the age groups of highest prevalence.

A similar chart was prepared on sex breakdown. Granville County had been concentrating case-finding efforts upon female population, particularly the young childbearing population. Again it was clear that the largest missed population was the male.

From these simple charts, the analysis of the data readily available in Granville County, it was possible to point out that scientific practice of public health in a tuberculosis case-finding program should be directed particularly at the white population, the older age groups, and the male population. Failure to look at the record, this simple fourth step in any good diagnostic procedure in any community, may

produce wasted time, effort, and money, as well as poor results.

Space does not permit me to go into as much detail and illustration of all the steps in scientific diagnosis. Schools of public health are set up to provide instruction in the basic principles, methods, and techniques necessary for developing skills in scientific diagnosis of communities. I can touch only upon the surface and objectives of such courses in each successive step.

The fifth step is the complete history and physical examination of the patient. No "history and physical" is ever complete; all forms used are short cuts, but we still follow some form to avoid omissions and errors. The best form yet devised for public health has been the so-called evaluation schedule of the American Public Health Association. We have misused this form and technique as a grading device, as a health conservation contest device, as a rating device, as an appraisal device, as an evaluation device for health departments and programs; but properly used as a diagnostic tool or technique, as a history and physical form to determine health status and needs of communities, it is still valuable, though sadly out of date.

Sixth, we make a tentative diagnosis, a working hypothesis, upon what the study has revealed so far, and if no more time nor money is available, we proceed to treat the patient in accordance with our best judgment. But hopefully, in difficult or complicated cases, we take the next step, step seven, and conduct special studies that are indicated by our observations up to this point. (The physician does not order, as a routine thing, a gastrointestinal complete series, gallbladder series, or renal dyes unless the preliminary findings justify such further study.)

Advanced studies are made also to develop new tools, indices, and criteria for scientific diagnosis. These advanced studies usually require consultation and the obtaining of outside help, financially and professionally, in all professions. In public health this is generally called research. The busy practitioner of public health cannot be expected to take on such extended continuous duties and specialized service without the outside help of more project money and personnel. In all professions, it has been, traditionally, a responsibility of professional schools and universities. However, since the community patient, or community laboratory, in which such studies must be conducted is in the health jurisdiction of the practitioner of public health, it is obvious that he must want, actually call for, and be understanding and sympathetic toward such study, not as something foreign, but as a continuing part of scientific diagnosis.

There are more steps in the scientific process of diagnosis and treatment. Eighth, we must have a written diagnosis, a commitment that will prove to be right or wrong, for we learn from our mistakes as well as our successes.

Ninth, we must determine priority of the many health problems and needs that every community patient has, priority in relation to patient cooperation, understanding, participation, and financial ability. We must be prepared to give a prognosis on the basis of several possible courses of treatment or programs we recommend, an honest prognosis if no prescription is followed by the patient.

Finally, tenth, we must be prepared to follow up and evaluate the results of our prescribed treatment, not only in general terms of well-being, but also in specific results of programs and service instituted.

TRAINING REQUIRED

The scientific practice of public health requires continuous effort on the part of public health practitioners. It requires training to practice upon a difficult and complicated patient, training not only in schools of public health, but in inservice training, community-side training.

Scientific practice of medicine would be difficult in Texas without medical schools, because teaching institutions can and do become the focal center for improving scientific practice. The present eminence and prestige of medical practice in the United States is a direct result of the leadership provided by our medical educational institutions. There is no school of public health in Texas and none in the whole Southwest. The closest public health schools are in Minnesota, California, and New Orleans. A school of public health is needed, desperately needed, in Texas or some adjoining state, not only to educate regular students to be scientific practitioners of public health, but to provide short courses, refresher courses, and continual education to the hundreds of public health workers practicing in the state, 70 per cent of whom have not had formal training in public health. A public health school also would provide, through service and consultation, the same stimulus to scientific practice of public health that medical schools provide to the scientific practice of medicine.

Public health practice has had medical leadership. It can continue or lose that leadership in the years ahead. The medical profession has a great stake in providing public health with qualified trained educated public health practitioners who know the difference between the practice of medicine and the practice of public health, who, because they know, will not infringe upon the area of competence of the medical profession, but will devote their time and effort to scientific diagnosis and treatment of communities, leaving to private medicine the scientific

diagnosis and treatment of individuals. Medical organizations in my opinion would do more to protect the private practice of medicine by providing more schools and better schools of public health than by all their present efforts at fighting socialized medicine.

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Bladder Neck Obstruction In Children

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BLADDER NECK obstruction in children is divided into two major categories:[9] (1) neuromuscular disorders and (2) congenital mechanical vesical neck obstruction.

The neuromuscular lesions are caused by developmental defects resulting from a neuromuscular imbalance between the bladder musculature and the internal sphincter. This condition is seen in spinal cord tumor, injuries, and diseases. The most common conditions are spina bifida and meningomyelocele. These conditions are treated chiefly by resection of the internal sphincter or bladder neck with questionable results.

Congenital mechanical vesical neck obstruction is caused by (1) bladder neck contracture, (2) hypertrophy of verumontanum, (3) prostatic or posterior urethral valves, (4) adenoma of the prostate gland, (5) hypertrophy of the interureteric ridge. Hypertrophy of the interureteric ridge may be the result of bladder neck obstruction in certain cases.

Bladder neck obstruction in children is seen second in frequency to all pathological lesions of the urinary tract. The most common lesion is stenosis or stricture of the external urethral meatus. This lesion is probably of equal importance to bladder neck obstruction and is found also in both the male and female. It is commonly associated with other obstructive urinary lesions as is seen in bladder neck obstruction. This condition does not produce the upper urinary tract damage that is seen in bladder neck obstruction, and consequently it is not the problem as far as diagnosis, treatment, and prognosis are concerned.

CASE REPORTS

CASE 1.—F. L., a white boy, age 10 years, was seen in January, 1955, with a history of having wet the bed and his clothes for the past 2½ years. Urinary frequency and straining on voiding had been present all of his life. He stated that he took longer to urinate than his friends did. The patient's mother was not impressed with her son's symptoms until 2 months prior to examination at which time he developed anorexia and marked urgency incontinence. Examination revealed a chronically ill, anemic, white child who appeared to have mild uremia. The nonprotein nitrogen was 120 mg. per 100 cc. The excretory urograms revealed marked bilateral hydronephrosis and hydroureters with marked renal impairment. Cystoscopy and cystourethroscopy revealed vesical diverticulum and marked trabeculation of the bladder and bladder neck obstruction. Residual urine was 335 cc. Because of the severe damage of the upper urinary tract, the patient was placed on suprapubic drainage for 10 months before definitive surgery could be performed. A Bradford-Young procedure[8] was performed, and the patient is now asymptomatic although some residual damage to the upper urinary tract is still present (fig. 1).

CASE 2.—J. H., a white girl, age 4 years, was seen for recurrent pyelonephritis on the right side. Chills, fever, and pyuria had been present for the past 6 months. Antibiotics and chemotherapy caused disappearance of symptoms only to have recurrence as soon as medication was stopped. Urinalysis of a catheterized specimen revealed 10 to 15 white blood cells per high power field. Excretory urograms revealed a double kidney on the right with evidence of pyelonephritis. The left kidney appeared normal. Voiding and gravity cystogram revealed reflux up both ureters on the right and no reflux on the left. Cystourethroscopy revealed marked trabeculation of the bladder with marked bladder neck obstruction and 30 cc. of residual urine. Because of the damage to the upper urinary tract with as-

Dr. James H. Campbell presented this paper for the Section on General Practice at the Texas Medical Association annual session April 21, 1958, in Houston.

Bladder neck obstruction in children is a serious condition frequently overlooked. Diagnosis is reached through excretory urogram, cystography, residual urine, urine studies, and cystoscopy. Treatment consists of surgical removal of the obstructive lesions by endoscopy or open surgery.

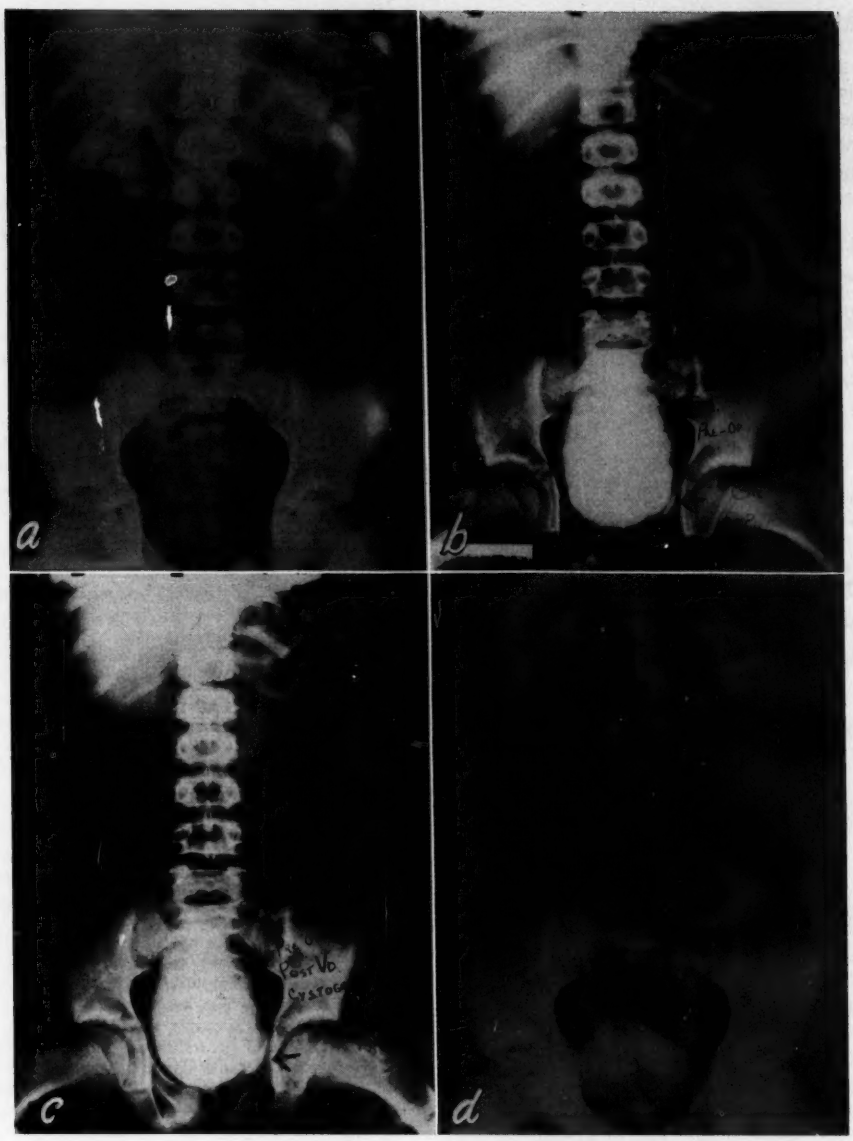

Fig. 1. Case 1. **a.** Excretory urogram revealing poor visualization of contrast medium after 6 hours.

b. Preoperative gravity cystogram revealing a large bladder and vesical diverticulum. No evidence of ureteral reflux exists.

c. Preoperative postvoiding cystogram revealing inadequate emptying of the bladder. Note the vesical diverticulum.

d. Excretory urogram after 6 months of suprapubic drainage. Note the dilatation of ureters and kidneys.

sociated reflux, retropubic resection of the bladder neck was combined with a vesico-ureteroplasty on the right (Hutch procedure[8]). Both ureters on the right were subjected to surgery. The patient has been completely asymptomatic since surgery with repeatedly sterile urine, negative cystogram, and normal excretory urogram (fig. 2).

CASE 3.—V. F., a white girl, age 4 years, was seen for repeated attacks of pyelonephritis since the age of 2 years. Straining on urination and frequency had been present all of her life. Enuresis had been present since birth. Excretory urograms revealed a normal upper urinary tract. Urinalysis (catheterized specimen) revealed 30 to 40 white blood cells per high power field. The nonprotein nitrogen was 24 mg. per 100 cc. The patient was examined by cystoscope under anesthesia and found to have a rather marked bladder neck contracture with moderate trabeculation of the bladder. There was reflux up the right ureter on the voiding and gravity cystogram. The patient was treated with urethral dilatations, periodic voiding regimen, antibiotics, and chemotherapy as determined by culture

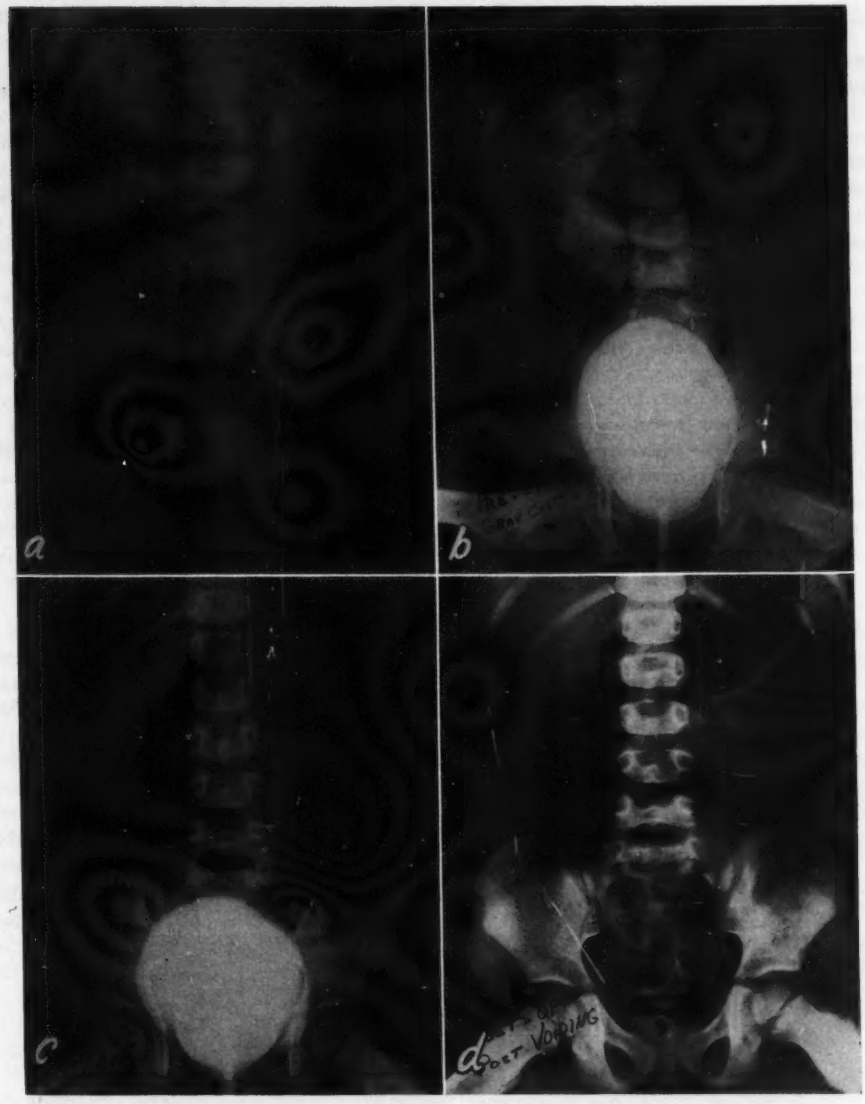

Fig. 2. Case 2. **a.** Preoperative excretory urogram. Note the renal reduplication on the right.

b. Preoperative gravity cystogram. Note the large bladder and ureterovesical reflux on the right.

c. Postoperative gravity cystogram. No evidence of ureterovesical reflux is present.

d. Postoperative postvoiding film after gravity cystogram. There is no evidence of ureterovesical reflux, and the bladder empties completely.

and sensitivity for a period of 6 months with poor results. Pyelonephritis occurred while the patient was on medication. A transurethral resection was performed with satisfactory results. There has been no further evidence of pyelonephritis although mild reflux is still present (fig. 3).

SIGNS AND SYMPTOMS

Since bladder neck obstruction is a congenital disorder and is present at birth, one would expect symptoms to begin at birth or soon afterward.[1, 2] This is usually true except the presenting symptoms may not be recognized or properly assessed by the parents and family physician.

The most important early symptoms are frequency and straining on urination. Wetting the diaper at abnormally frequent intervals and straining to urinate as indicated by a purplish discoloration of the face during the voiding act may be the first observed change in the voiding pattern. Dr. Reed

Nesbit[4] has described the normal infant as one who urinates with a forceful high trajectory stream, which is at once the object of curious pride to the mother as well as envy to the father, and empties the bladder with a continued stream. Any child who urinates with an interrupted stream must be regarded with grave suspicion.

The second and most common urinary symptom is enuresis. This condition is normally considered a functional disturbance and is in the majority of cases, but in approximately 35 per cent of the cases that we see with enuresis there is bladder neck obstruction. It might be better to do a complete urological work-up in a persistently enuretic child and thereby salvage the urinary tract even if some of the children are examined unnecessarily. Certainly with the scientific improvement in the size and safety of our urological instruments, examination is no longer a procedure to be frowned upon. We sincerely believe that every child who is enuretic should be thoroughly examined for organic urinary tract lesions before making a diagnosis of functional disorder. Time and psychotherapy have their place in treatment but certainly not in cases of bladder neck obstruction with serious impairment of renal function. Psychiatry with its concern with fixation complexes, neuroses, and maladjustments may cause great harm in deferring adequate investigation and treatment when the genital tract is concerned. Chronic infection of the urinary tract is a high price to pay for a well adjusted child who is chronically ill. Too often, these children are regarded as behavior problems or thought to be slow in toilet training when in reality they are suffering from ignorance on the part of their parents. It would appear that a much safer and scientific approach would be to consider every child with symptoms of enuresis after 5 years of age as having a possible urological disease. If there should be any other associated symptoms of bladder dysfunction, a complete investigation is warranted before this age and should not be delayed. Wetting the clothing during the day is considered pathognomonic of organic urinary disease until proven otherwise.

The finding of pus in the urine is normally a late complication of obstruction although frequently this may be the initial finding that was responsible for the urological investigation. It usually means that the earlier symptoms were either overlooked or considered insignificant. In the past it has been the custom to have a urological survey or consultation after the second or third attack of pyelonephritis. This is certainly improper as every child with an attack of pyelonephritis should not be treated without determining if an obstructive lesion is present. Also, the instance of multiple obstructive lesions in the urinary tract is not uncommon.

Retention of urine is a late symptom and is a result of decompensation of the bladder and in the advanced cases is accompanied by dribbling of urine. Protuberance of the abdomen with the "pot bellied" appearance may be evident to the parents as well as the physician and considered not to be of urological origin. In most cases the residual urine will be only 1 to 6 ounces and the amount of residual urine may not bear any relationship to the amount of urinary tract dilatation and damage. Acute retention of urine secondary to bladder neck obstruction

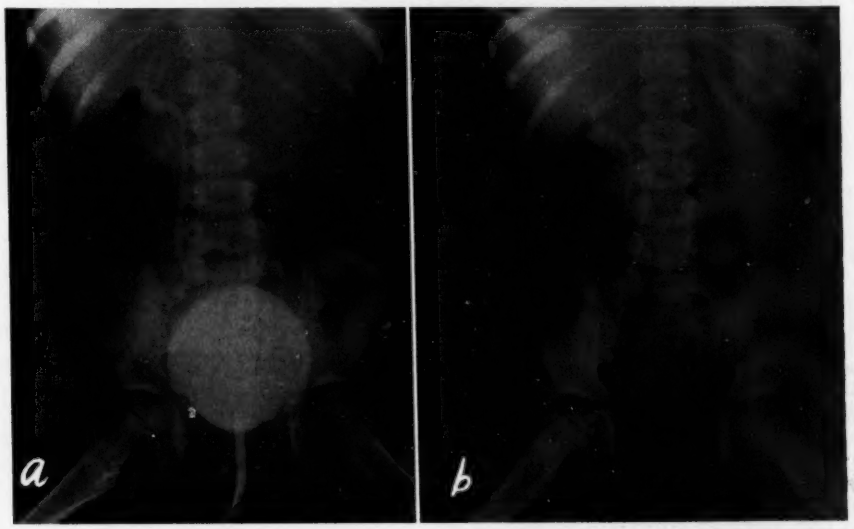

Fig. 3. Case 3. **a.** Preoperative gravity cystogram. Note the ureterovesical reflux on the right. **b.** Preoperative voiding cystogram. Note the ureterovesical reflux on the right.

requiring catheterization in children is extremely rare, and overflow incontinence is observed more frequently than acute retention of urine.

Hematuria is normally not a prominent symptom in bladder neck obstruction. When it does occur, it is usually due to straining on urination or to infection.

Symptoms of uremia, such as headaches, irritability of the nervous system, gastrointestinal symptoms, nausea, anorexia, vomiting, and diarrhea with anemia, accompany the findings of marked kidney damage associated with the elevation of nitrogenous waste products in the blood.

DIAGNOSIS

The diagnosis of bladder neck obstruction is often suggested by the history, and usually it is not difficult when one is aware of the possibility. Often an attack of pyelonephritis may be a presenting sign leading to the diagnosis of obstruction. However, this may be obscure and may be classified as an unexplained fever although the urinalysis in these children with a stain of the centrifuge urinary sediment usually will clarify the picture. In those cases in which pyelonephritis is absent it is important to note that the urinalysis and intravenous pyelogram may be completely negative and still bladder neck obstruction may be present. The differential diagnosis must be considered in every child with unusual or persistent urinary symptoms.

Cystoscopy and cystourethroscopy may reveal a median bar type of obstruction, but often the entire circumference of the bladder neck is contracted. At times there may be difficulty in determining if bladder neck obstruction is present in the borderline cases, but on cystoscopy one can always see the degree of trabeculation and cellule formation in the bladder. When this is present, one can be certain there is evidence of intravesical obstruction. Instrumentation (cystoscopy) of these children is always performed under general anesthesia.

We have another test in which we place a lot of confidence and which we use routinely, that is, the gravity and voiding cystogram.[8] This procedure is commonly accomplished at the initial office visit without anesthetic although sedation is sometimes used in the smaller children. The patient is catheterized for residual urine after voiding. After the bladder is emptied it is filled by gravity with a 5 per cent solution of sodium iodine or any of the recognized organic iodine compounds that are available for this purpose, until the patient feels full or the liquid level begins to waver up and down in the barrel of the syringe. A film is taken which is termed the "gravity cystogram." The catheter is then removed and the patient is urged to void. A film made during voiding is taken in the older child. In the younger child where voiding is cumbersome in the supine or semi-erect position the patient is allowed to stand or sit. Immediately after micturition is complete a film is taken and termed "postvoiding cystogram." An emptying film is taken if reflux demonstrates a tortuous ureter. This procedure demonstrates the size of the bladder, trabeculation cellules, diverticula, residual urine, and most important, vesicoureteral reflux. The latter condition denotes incompetence of the ureterovesical valve, and on filling the bladder or on voiding instead of the urine remaining in the bladder it refluxes up the ureter to the kidney. We consider this condition as always being pathological. It is believed that this is responsible for recurrent attacks of pyelonephritis and damage to the upper urinary tract. It is also important to know if the tortuosity of the ureters is causing obstruction to the urine flow from the kidneys to the bladder. Delayed cystography[7] is of value, but the voiding and gravity cystograms have been the more satisfactory method.

Retrograde pyelography may be indicated only if the excretory pyelograms do not accurately visualize the upper urinary tract. When infection is present, it is important to identify the specific organism in order that proper sensitivity studies may be obtained. Renal function tests are obtained in order to determine the extent of damage, prognosis, and therapy.

TREATMENT

Those cases diagnosed before the occurrence of serious upper urinary tract disease can be cured by removing the obstruction either endoscopically or by the retropubic approach. In those cases of serious impairment to the upper urinary tract, prolonged drainage either by cystotomy or bilateral nephrostomy will be necessary before any type of definitive treatment can be accomplished. In 2 patients, cystotomy drainage was necessary for more than 1 year before the kidney function returned to a safe operative limit.

Our choice of treatment in removing the obstructive bladder neck has been by the retropubic route using the Bonnin-Bradford-Young procedure.[5] We prefer this rationale over transurethral resection because (1) electric coagulation and cutting is not needed, (2) the residual fibrous tissue is less likely to contract, (3) the obstructive tissue is removed anteriorly and posteriorly, (4) a pliable flap of bladder is interposed into the fibrous ring, (5) the circumference of the bladder neck is enlarged, (6) suprapubic drainage can be established and vesico-

ureteroplasty can be performed when indicated, and (7) we are dissatisfied with the infant McCarthy resectoscope. In those cases in which vesicoureteral reflux is a problem, it may be necessary to reimplant the ureter into the bladder or perform a vesicoureteroplasty.[6]

Urethral dilatation has been disappointing in our hands although we believe that it is of value in certain cases in females where there is minimum bladder change and no abnormal upper urinary tract changes. Dilatation of the urethra is performed periodically after surgery to prevent stricture formation. This is accompanied by small doses of medication as indicated by culture and sensitivity studies. Periodic voiding on a 2 hour schedule during the day and urinating twice at night is of value in those children in whom reflux is a problem. Certainly the associated lesion must be corrected along with the bladder neck obstruction and its complications.

SUMMARY

Bladder neck obstruction in children is a common and serious urological condition, frequently overlooked by the parents and physician who are not impressed by the minor symptomatology.

The accurate diagnosis of bladder neck obstruction results from the information gained from excretory urogram, cystography, residual urine, urine studies, and a careful cystoscopic examination performed under anesthetic.

Treatment consists of surgical removal of the obstructive lesions either by endoscopic means or by open surgery. Associated conditions and secondary complications must be corrected when surgically necessary.

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Meningitis

Review Based on 117 Cases At Hermann Hospital, Houston

JAMES R. McNIEL, M.D.

Austin, Texas

TWO OF EVERY THREE children with meningitis can expect a normal recovery from this disease, which until the advent of sulfa drugs was nearly 100 per cent fatal. With the use of each new antimicrobial agent has come a better chance for a satisfactory recovery from this infection. However, the emergence of resistant organisms and many other factors have kept the treatment of meningitis from being effective in many cases. When he is confronted with a new case, it is a help for the physician to know the results of treatment which others have experienced recently and some of the factors which influence the outcome of the disease.

Dr. James R. McNiel, now practicing pediatrics in Austin, presented this study to the Section on Pediatrics of the Texas Medical Association at the 1958 annual session April 22 in Houston, where he then was a resident in pediatrics at Hermann Hospital.

A study of 117 cases of acute meningitis in children during a 10 year period with follow-up in 115 suggests that Hemophilus influenzae is the most common cause, but that the best prognosis is in cases caused by Meningococcus. A review of recent literature as well as this series indicates good recovery in 67 per cent of children with meningitis, residual damage in 17 per cent, and death in 16 per cent.

MATERIALS AND METHOD

The records of all patients of pediatric age admitted to Hermann Hospital, Houston, from January 1, 1948, through December 31, 1957, with the diagnosis of meningitis were reviewed. Those included in the study were (1) those with purulent spinal fluid and the typical course of meningitis, (2) those with bacterial acute meningitis proven by smear or culture, and (3) those with meningitis following neurosurgery. Not included in the study were (1) those with chronic meningitis (there were 6 children

with tuberculous meningitis admitted during the period of this study), (2) 1 patient with microscopic meningitis as an incidental finding at autopsy, and (3) 2 patients with meningitis secondary to exposure of the meninges by congenital defects.

TYPES OF CASES

There were 117 cases of meningitis, including 64 male, 53 female patients; 63 white, 54 Negro patients; and 85 clinic, 32 private patients. The causative agents are shown in figure 1 and the ages at occurrence in figure 2.

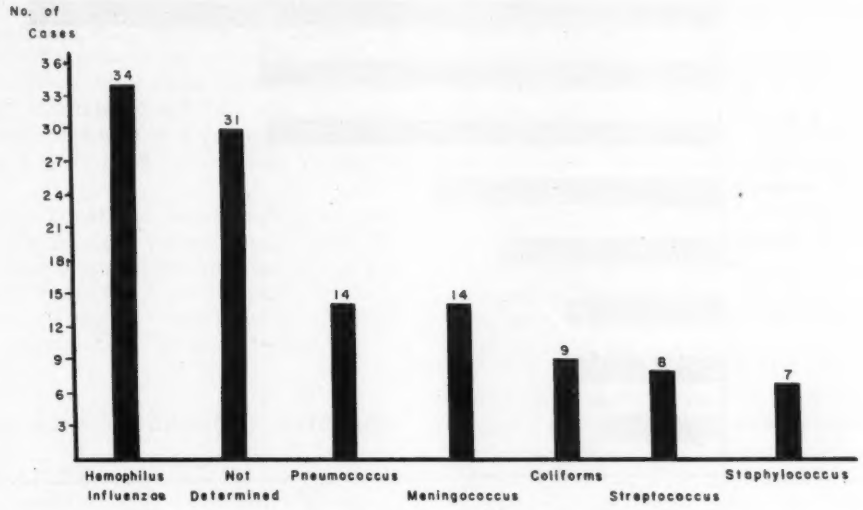

Fig. 1. Causative agents in 117 cases of meningitis.

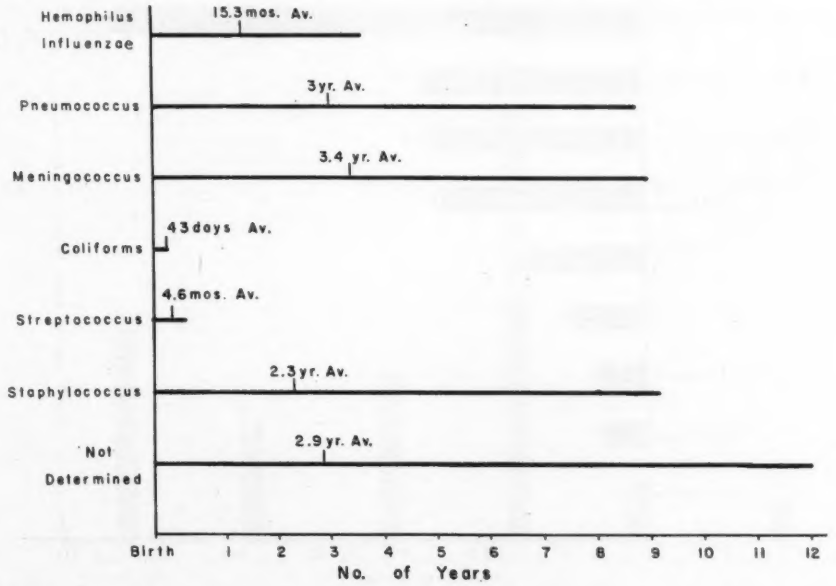

Fig. 2. Age of 117 patients at occurrence of meningitis arranged according to causative agents.

There were 67 patients (58 per cent) 1 year of age or younger. There were 15 patients with meningitis in the neonatal period. The causes for these were 1 Hemophilus influenzae, 1 Staphylococcus, 1 Neisseria, 1 Aerobacter aerogenes, 1 Proteus mirabilis, 2 Streptococcus, 3 Escherichia coli, and 5 not determined.

It will be noted from figure 1 that H. influenza is the largest group with 34 cases. The ages of these patients ranged from 10 days to 4 years. Five of

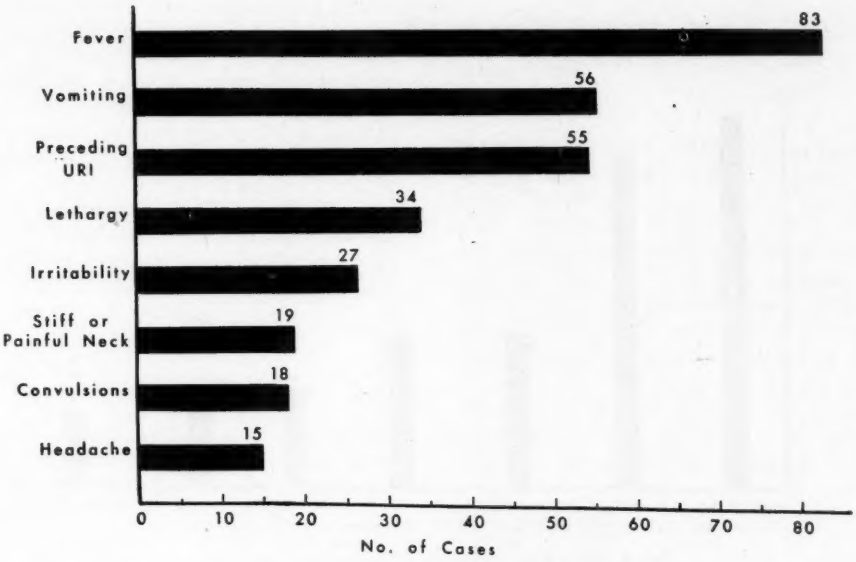

Fig. 3. Symptoms in 117 cases of meningitis.

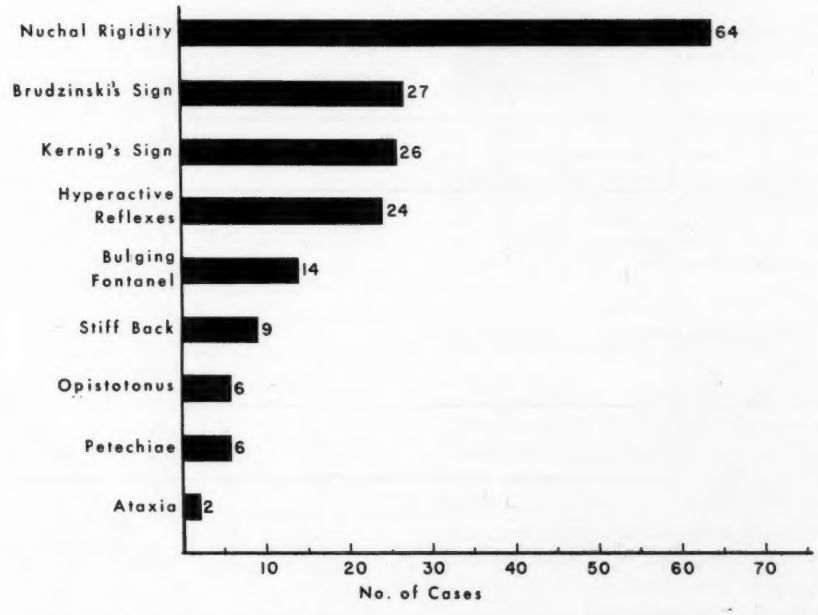

Fig. 4. Physical findings in 117 cases of meningitis.

these were less than 6 months of age. Two were 3 to 4 years, and 3 were 4 to 5 years. The average age was 15.3 months.

The next largest group was that in which the cause could not be established. There were 31 in this group, the ages varying from 12 days to 12 years with an average of 2.9 years.

There were 14 cases of pneumococcic and 14 cases of meningococcic meningitis. Each type occurred in patients from 1 month of age to late childhood. In the coliform group, all of which occurred before the patient was 4 months of age (the youngest being 36 hours old), there were 4 due to E. coli, 3 to Salmonella, 1 to P. mirabilis, and 1 to Aerobacter aerogenes.

There were 8 cases of streptococcic meningitis. Of these 3 were alpha streptococcus, 2 were Str. fecalis, 2 were beta streptococcus, and 1 was type unspecified. The age range was 2 weeks to 8 months. There were 6 patients with staphylococcic meningitis with ages ranging from 5 weeks to 9 years.

CLINICAL AND LABORATORY FINDINGS

Symptoms.—The symptoms noted in these patients are shown in figure 3. Expressed as percentages they are fever 71 per cent, vomiting 48 per cent, lethargy 29 per cent, irritability 23 per cent, history of recent convulsion 15 per cent, and headache 13 per cent. Less common symptoms were stiff or painful neck, head held in opisthotonus, "stiff all over," and semicoma. Six of the 14 patients with meningococcic meningitis had petechiae at the time of admission to the hospital.

Physical Findings.—Nuchal rigidity occurred in 42 per cent, positive Brudzinski's sign in 23 per cent, positive Kernig's sign in 22 per cent, hyperactive reflexes in 20 per cent, bulging fontanel in 12 per cent (this was 18 per cent of those less than 2 years of age) (fig. 4). Less common signs were stiff back, opisthotonus, and ataxia. Two patients never showed any elevation of temperature throughout the course of the disease.

Laboratory Findings.—Figure 5 shows the average spinal white cell count for each type of organism in which the cause was known. Figure 6 shows the average spinal white cell differential in the same group. Figure 7 shows the average spinal fluid glucose and protein. It should be noted that the coliform group had the highest average spinal white blood cell count and the highest spinal protein level.

Bacteriological Findings.—Figure 8 shows the bacteriological findings of the 86 cases in which the causative agent was proven. Blood cultures were positive in 43 per cent of the cases of meningococcal meningitis and in 45 per cent of the coliform group. In 1 of the 14 cases of meningococcal meningitis a petechial smear showed the organism.

Subdural Effusions.—There were 6 patients with subdural effusions. Five of these were in the group of undetermined cause and 1 had Salmonella D. All made a good recovery except 1 of the first group who had severe damage with hydrocephalus followed by seizures.

Length of Fever.—The length of fever was counted from the time of hospitalization until the temperature remained below 100 F. rectally. The average

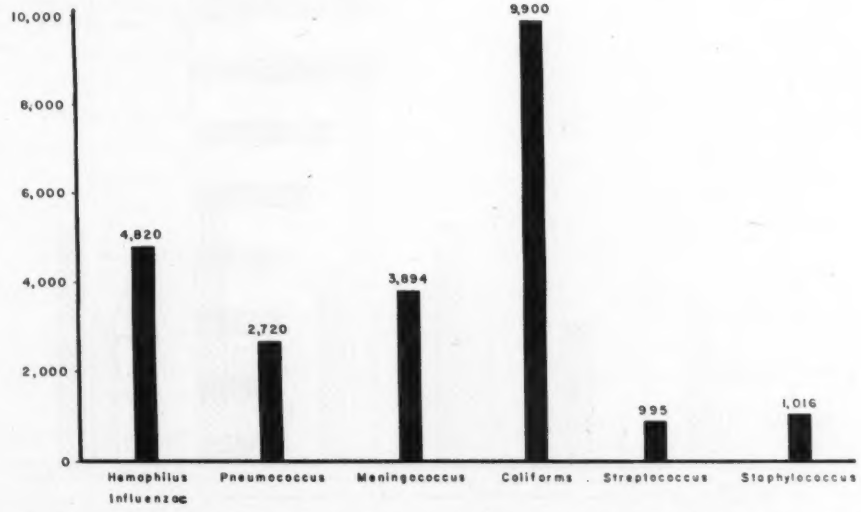

Fig. 5. Average spinal white blood cell count in 86 cases of meningitis arranged according to causative agent.

length of fever for the different types was H. influenzae 7 days, Diplococcus pneumoniae 10 days, N. meningitidis 8 days, and Staphylococcus 12 days; the temperature curve in the coliform group was erratic.

RESULTS

Follow-Up Study.—To learn how these patients have been subsequent to the disease, an effort was made to check on their condition at present or at follow-up examination earlier if the present status could not be learned. Follow-ups were obtained on 85 patients; 2 were not followed; the other patients were dead or had severe brain damage. The parent of each patient without obvious severe brain damage was asked these questions, by letter or by telephone: (1) Is your child living? (2) If so, is his speech and hearing normal? (3) Is his vision normal? (4) Does your child get along well with other persons? (5) If he is in school, what were his grades last semester?

The kinds of neurological defects found are shown

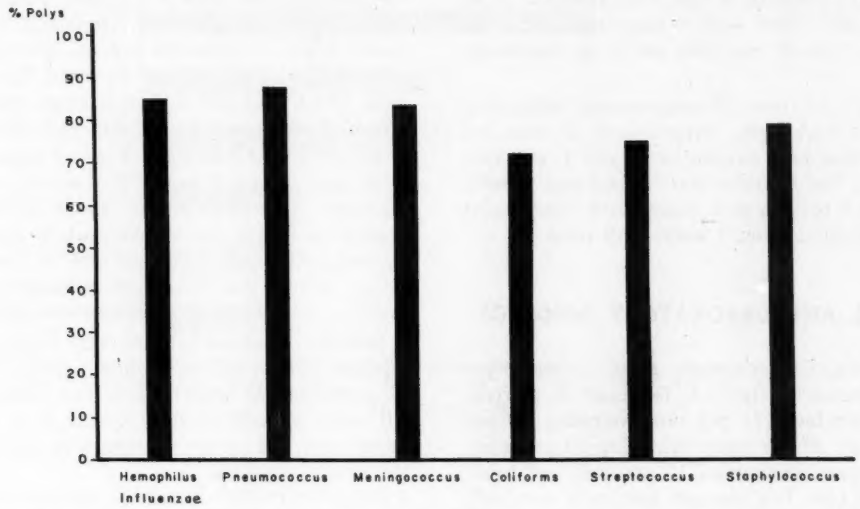

Fig. 6. Average percentages of polymorphonuclear leukocytes in 86 cases of meningitis arranged by causative agent.

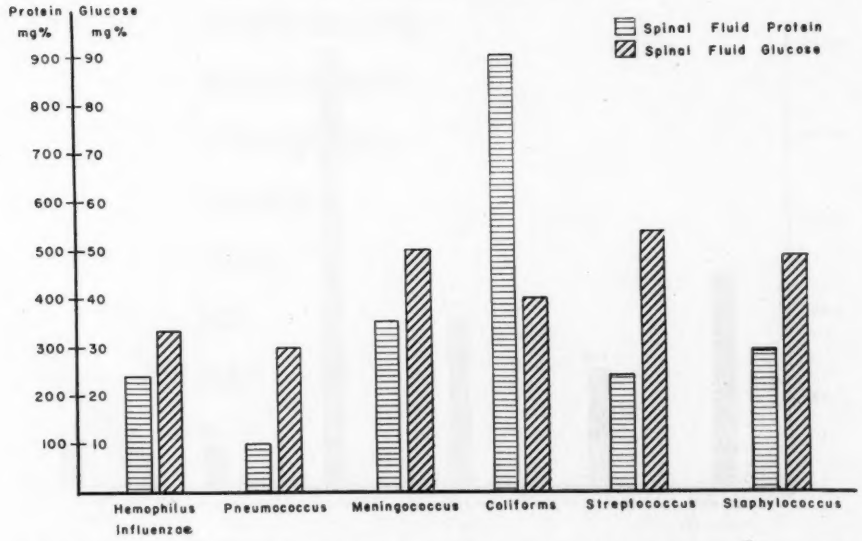

Fig. 7. Protein and glucose levels in spinal fluids in 86 cases of meningitis arranged by causative agent.

in figure 9. About two-thirds of these defects were of serious degree. The over-all results of treatment are shown in table 1. There were 18 deaths, 28 patients with residual damage, 69 normal, and 2 not followed.

Table 2 shows the patients in whom neurological defects became apparent for the first time after discharge from the hospital. Table 3 shows the patients in whom defects disappeared after discharge from the hospital.

Results of Meningitis in Newborn.—Of 15 patients with meningitis in the period from birth to 28 days, 5 died and follow-up information was obtained in 9 of the remaining 10. Eight were fol-

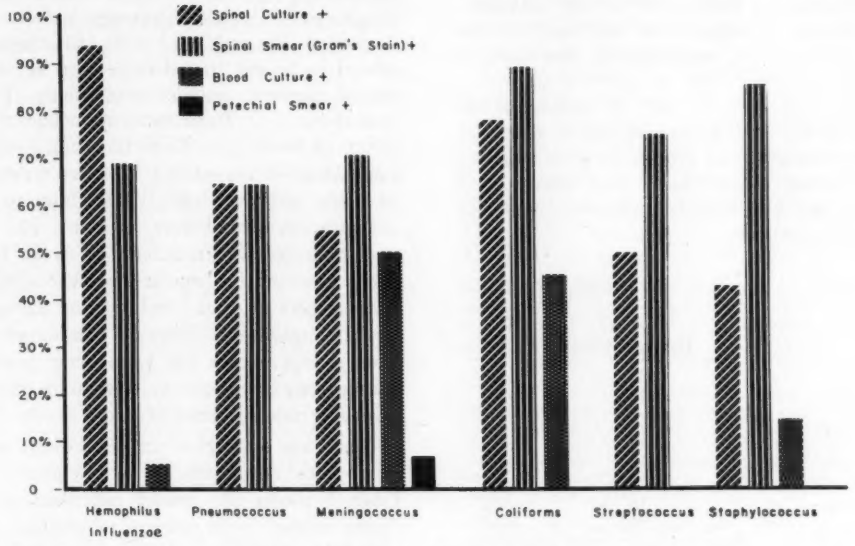

Fig. 8. Percentages of positive bacteriological findings in 86 cases of meningitis arranged according to causative agent.

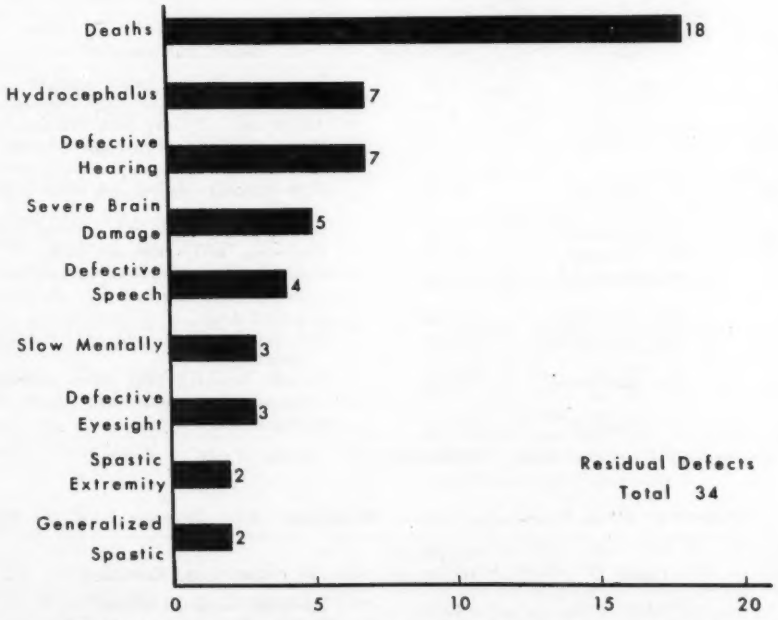

Fig. 9. Kinds of residual neurologic defects in 115 cases of meningitis.

lowed more than 1 year. Three had residual damage and 7 were normal.

In a review of meningitis in the newborn period, Watson[9] reported 45 cases with a mortality of 64 per cent, severe sequela in 11 per cent, and recoveries in 24 per cent.

Hearing Loss and Streptomycin.—Of 7 patients with obvious hearing loss 1 was severely damaged. In the remaining 6, streptomycin was used to treat 4. Of all 117 patients, streptomycin was used in 51 per cent.

In a recent report of 76 cases of meningitis followed carefully for evidence of auditory or vestibular damage Bergstrand[3] found 7 patients with impaired vestibular function. Six of these were treated with streptomycin, and 3 of them had abnormal vestibular reactions at reexamination.

TABLE 1.—*Results of 117 Cases of Meningitis in Children.*

Type of Meningitis	Deaths (%)	Residual Damage (%)	Normal (%)
H. influenzae	9	32	59
Pneumococcic	29	29	42
Meningococcic	0	8	92
Coliform	55	11	34
Streptococcic	12	12	76
Staphylococcic	0	57	43
Not determined	16	16	68
Average	15	23	60

2 patients not followed but normal at time of discharge.

Convulsions.—Table 4 shows the different types of meningitis listed in the probable order of severity of the disease. The frequency of the history of a convulsion showed good correlation with the same order, perhaps indicating a poorer prognosis in patients who convulse.

Adequacy of Treatment.—In an attempt to study the effect of adequacy of treatment and delay in treatment the patients in this study were divided into six groups. "Adequate" treatment is defined as given in several reports.[1, 2, 4, 5, 6, 10] The onset was considered to be the first definite sign or symptom of central nervous system involvement. The groups were these: (1) Those receiving adequate treatment before 24 hours. (2) Those receiving adequate treatment 24 to 48 hours. (3) Those receiving adequate treatment after 48 hours. (4) Those receiving inadequate treatment before 24 hours. (5) Those receiving inadequate treatment 24 to 48 hours. (6) Those receiving inadequate treatment after 48 hours. With respect to deaths and residual damage no statistically significant difference was found in any of these groups except the 12 patients treated inadequately after 48 hours. In this group there were 4 normal, 4 residual damaged, and 4 deaths (P=.027).

There are several recent discussions of optimal therapy for meningitis in the literature.[1, 2, 4, 5, 6, 10] Table 5 shows the results published in different reports recently with cases of tuberculous meningitis excluded.

TABLE 2.—*Patients in Whom Neurological Deficits Occurred After Discharge from the Hospital.*

Patient	Age at Onset	Cause	Length of Follow-Up	Deficit and Remarks
1	1 mo.	Staphylococcus	5 yr.	Slow mentally and speech retarded
2	7 mo.	Streptococcus	3 yr.	Defective hearing (received streptomycin)
3	10 mo.	Pneumococcus	15 mo.	Ataxia and difficulty with balance
4	16 mo.	H. influenzae	9 yr.	Deaf in one ear (B average in school, received streptomycin)
5	10 da.	H. influenzae	10 yr.	Slow mentally (failed 2nd grade 2 times and 3rd grade 1 time)
6	10 mo.	H. influenzae	10 mo.	Speech defect (appeared at 5 mo. after discharge)
7	7½ mo.	H. influenzae	9 mo.	Right leg "stiff," does not walk
8	2 yr.	H. influenzae	3 yr.	Hearing slightly impaired in one ear (did not receive streptomycin)
9	3 yr.	Not determined	1 mo.	Left foot drop
10	5 yr.	Not determined	6 yr.	Defective hearing in one ear (did not receive streptomycin)
11*	3 mo.	Not determined	8 yr.	Mentally retarded; EEG shows several cortical and diencephalic atrophic areas
12	2 yr.	H. influenzae	2 yr.	Speech defect

*This patient also received a series of rabies immunizations at 8 months of age.

TABLE 3.—*Patients in Whom Neurological Deficits Disappeared After Discharge from the Hospital.*

Patient	Age at Onset	Cause	Length of Follow-Up	Deficit and Remarks
13	5 yr.	Pneumococcus	1 yr.	Transient emotional lability
14	4 yr.	H. influenzae	6 yr.	Transient limp; now captain of football team

Conclusions.—In an excellent review of 354 cases of meningitis Smith[8] found the following facts which were confirmed by this study: (1) about one-half the cases occurred in the first year of life, (2) coliform organisms were the most common cause of meningitis in the newborn period, (3) meningitis due to H. influenzae was the most common type in childhood, (4) a high incidence of complications was associated with pneumococcal meningitis, (5) subdural effusions were not a common or serious complication (6) meningitis in the first month of life results in a relatively high mortality (33 per cent in Smith's series compared to 15 per cent in the present study), (7) more cases occur in the first month of life than in any other similar period.

TABLE 4.—*Correlation of Frequency of Convulsions with Severity of Meningitis.*

Type Disease in Probable Order of Severity	Deaths (%)	Residual Damage (%)	Convulsions (%)
Coliform	55	11	44
Pneumococcus	29	29	36
Staphylococcus	0	57	28
H. influenzae	9	32	18
Streptococcus	12	12	0
Meningococcus	0	8	0

TABLE 5.—*Results in Published Studies of Meningitis in Children.*

Author	No. Cases	Residual Damage (%)	Deaths (%)
Bergstrand[3]	92	16	7
Cayler[4]	60	12	12
Smith[8]	354	14	25
Joos and Leeper[7]	38	9	31
French[6]	150	12	7
Present Study	117	23	15
Total	811	16.6	15.8

One difference between the group reported by Smith and this study is the type of meningitis with the best prognosis. In the group reported by Smith, disease caused by H. influenzae carried the best prognosis, but in this study meningococcic infection had the best prognosis. This difference is partly explained by the larger doses of penicillin used in recent years and the combination of it with sulfadiazine in treating these cases.

SUMMARY

A study of 117 cases of acute meningitis in children admitted to Hermann Hospital, Houston, in the past 10 years with follow-up information obtained in 115 cases showed the following results:

1. Meningitis due to Hemophilus influenzae is the most common type in childhood.
2. More than half the cases occurred in the first year of life.
3. A high incidence of complications was associated with pneumococcal meningitis.
4. The best prognosis was in the group with meningococcic meningitis.
5. Twelve patients (10 per cent) had neurological deficits which became apparent for the first time after leaving the hospital.
6. Two patients had minor deficits which cleared after leaving the hospital.
7. The history of a convulsion was more frequent in those types of disease with a poorer prognosis.
8. A review of the recent literature with the patients in this study shows that 67 per cent of children with meningitis now make a good recovery; 17 per cent have residual damage; and 16 per cent succumb to the disease.

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Dr. McNiel, 5316-A Cameron Road, Austin.

Hospital Patients Increase

Hospitals in the United States cared for 22,993,000 patients in 1957, more than in any previous year and an increase of more than 900,000 from the 1956 total, reported the American Hospital Association. A total of 3,739,259 babies were born in hospitals last year, a rise of 248,118 over the 1956 total. On any given day in 1957, an average of 1,320,000 patients and 48,775 newborn infants were hospitalized.

A typical child born today has 25 chances in 1,000 of losing his mother by death before he reaches 18 years of age and 57 chances in 1,000 of losing his father. Fewer than 1 out of every 1,000 children in the country now has lost both parents, according to the Health Information Foundation.

Vioform — Hydrocortisone Cream In Selected Dermatoses

DONALD G. W. BROOKING, M.D., and J. B. HOWELL, M.D.

Dallas, Texas

VIOFORM, 5-chloro-7-iodo-8-hydroxyquinoline, is well known as an amebicide, as a surgical powder for topical use, and for trichomoniasis and moniliasis of the vaginal tract.

European dermatologists[1] introduced the topical use of Vioform and were the first to recognize the value of the drug in ointment form. Topical hydrocortisone therapy has proven to be one of the most useful drugs in dermatological therapy of eczematous, pruritic, and inflammatory dermatoses.

From a lengthy clinical experience Sulzberger and Baer[6] found Vioform a valuable remedy in topical therapy. Although they pointed out that the exact mode of the drug's therapeutic action is unknown, they found it a useful remedy when used in irritated, impetiginized, and infected eczemas; atopic and seborrheic dermatitis; bacterial and mycotic dermatoses; psoriasis; pruritus ani; and sycosis vulgaris. The drug was found to be especially useful "when a mild antibacterial and antifungus effect is desired, when irritant action must be reduced to a minimum, when previous therapy has irritated and when other remedies are not feasible, not effective or not tolerated." The drug may be used alternately with other remedies. The incidence of irritation and sensitization in topical therapy has been low compared with other commonly used dermatological remedies. Toxic manifestations from absorption are never a problem.

Dr. Donald G. W. Brooking and his co-author, Dr. J. B. Howell, both of Dallas, presented this paper for the Texas Dermatological Society in Houston, April 21, 1958.

A Vioform and hydrocortisone combination has proved to be a valuable topical remedy for the treatment of a number of dermatoses, including seborrheic dermatitis, nummular eczema, eczematoid eruptions of the hands due to alkali damage type of irritation, atopic, dermatitis, and lichen simplex chronicus. In most cases, the drug is not curative but suppressive. Its chief disagreeable quality is a mild staining property.

In our own experience, Vioform cream has been found to be one of the most effective and useful drugs in topical therapy. We prefer, in a warm climate, the 3 per cent Vioform in a water washable cream. In the winter months and for certain hand eruptions, the use of Vioform ointment is equally valuable. Our experience confirms the report of Sulzberger and Baer on the highly valuable therapeutic effectiveness of this medicament. The combination of Vioform with hydrocortisone, we believe, will prove to be one of the most valuable dermatological remedies available. The therapeutic value of each preparation has been established beyond any doubt.

MATERIALS AND METHODS

Vioform 3 per cent-hydrocortisone 1 per cent in a water washable cream was used topically in a selected group of private patients. The cream was applied three or four times a day uncovered. Whenever possible the Vioform-hydrocortisone was used as a simultaneous symmetrical comparison with another medication as a control. This, however, was not always possible. In office practice with private patients, it is not possible to do a thoroughly scientific appraisal of topical therapy. Our results, therefore, must not be accepted as conclusive proof but as our best clinical judgment regarding the value of the remedy in the disease under consideration. Patients were seen at approximately weekly intervals. No example of irritation from the drug was noted. There were no examples of accentuation of the existing dermatitis nor was there any contact dermatitis noted in the cases studied. The primary objection to the topical use of Vioform is the yellowish brown stain.

Table 1 summarizes the conditions treated in our series.

EVALUATION OF THERAPY

Nummular Eczema.—Diagnosis of nummular eczema refers to a form of eczema which deserves special consideration because of its distinctive appearance and course, its unknown cause, and its peculiar response to treatment. The eruption consists of pinhead sized papules and papulovesicles which often become grouped and confluent. In this way, coinlike plaques are formed. These plaques may be single or multiple, few or numerous. There is a tendency to remission in the summer months and exacerbation in the fall or winter although sometimes the reverse is true. This type of eruption is recurrent for many years.

Eight patients were observed whose dermatitis

fulfilled the strict criteria for the diagnosis of nummular eczema. It is not well known that nummular eczema can be managed by the topical use of Vioform-hydrocortisone. The drug is not curative, but is suppressive. Depending on the severity of the eczema, the cream must be applied from one to five or more times daily. The number of daily applications must be individualized. The objective of applying the cream with regularity to suppress the dermatitis is emphasized to the patient. If one or two daily applications suffices, this schedule is carried out as long as needed.

Relief of the severe itching and discomfort was apparent promptly in the 8 patients treated. In all cases the eruption was cleared and kept in a phase of remission by the application of the Vioform-hydrocortisone cream. When the cream was withdrawn, the eruption promptly reappeared. There was usually a disappearance of the nummular eczema in approximately 5 to 7 days. There may be a breakthrough or recrudescence of the eruption in severe cases or when the patient becomes forgetful about applying the remedy. Vioform-hydrocortisone is particularly useful in the occasional patient who acquires either a dermal or epidermal sensitivity to Neomycin-hydrocortisone therapy.

Until the introduction of hydrocortisone, the topical treatment of nummular eczema was speculative and unpredictable, and the physician could never do more than prescribe and be optimistic. We want to emphasize again that the medication controls, not cures the disease. If the patient has a remission, no therapy is required until the nummular eczema appears again.

Mr. J. C., aged 48, had had nummular eczema for 10 to 12 years. The diganosis had not been established in the past, and the patient had been treated for various dermatological conditions including contact dermatitis, infectious eczematoid dermatitis, and dermatophytosis. Treatment had included various topical steroid creams and ointments, wet compresses, ammoniated mercury, many different types of antihistamines orally, and parenteral steroid therapy. The patient had widespread nummular eczema of the ankles, legs, buttocks, arms, and wrists. Initially Vioform-hydrocortisone cream was prescribed, with clearing of the eczema in 2 weeks.

TABLE 1.—*Conditions Treated by Vioform-Hydrocortisone.*

Eczematous dermatitis of the hands, alkali damage type	19
Lichen simplex chronicus	10
Flexural psoriasis	2
Eczematized psoriasis	1
Seborrheic dermatitis	19
Nummular eczema	8
Pruritus ani	3
Lichen sclerosus et atrophicus	3
Hyperhidrotic eczema	4
Atopic dermatitis	15
Total	84

Approximately 6 weeks after starting Vioform-hydrocortisone treatment while on vacation, he had a mild breakthrough of the eczema. A substitute ointment containing hydrocortisone without Vioform and a tar ointment were used for approximately 4 weeks. The patient voluntarily returned to the Vioform-hydrocortisone cream because he thought it more effective. We have observed the patient over a 5 month period, and it was obvious that he was able to control the eruption when he treated himself adequately. As with so many people, it was difficult to get him to realize that nummular eczema is a chronic recurrent condition but can be controlled in a way comparable to diabetes being controlled by insulin.

Lichen Simplex Chronicus.—Nine patients with lichen simplex chronicus (localized neurodermatitis) were treated. The fundamental principle of treatment in patients with lichen simplex chronicus is controlling itching, scratching, rubbing, and traumatizing the area, and, in a few cases involving the instep or ankle area, support of the return flow of venous blood. Interesting examples are well known in which there is complete clearing of lichen simplex following the application of a cast on a patient who suffers a fracture of the same extremity on which the lichen simplex is situated. After a period of splinting with the cast while the bone heals, the physician and patient sometimes are astonished to find the lichen simplex has healed also. Similar examples of helping or curing lichen simplex by the use of adhesive tape bandaging, elastoplast bandaging, or other mechanical means of preventing trauma to the affected site have been observed. The topical use of Vioform-hydrocortisone cream has proven to be a "medical splint." Both Vioform and hydrocortisone have antipruritic value when applied topically. The combination of the two has proven one of the most useful of all topical remedies for lichen simplex except for the nuchal site where it is often impractical because of its staining qualities.

Our most spectacular response in the entire series was Mrs. R. B. C., who had small sized areas of lichen simplex chronicus involving the right upper eyelid of some 6 to 7 years' duration. She was given Vioform-hydrocortisone cream and instructed to apply it three to four times daily and any time against itching. Within 3 weeks the entire patch had cleared. Symptoms of itching and burning were controlled promptly with the first days' application of the cream. Recurrence has not taken place since discontinuance of the medication. This spectacular response cannot be duplicated often but is worthy of note.

Three patients with lichen simplex chronicus were given roentgen-ray therapy along with the topical use of the medication to control the itching. The number of roentgen-ray treatments given to clear the lichenification was 3 to 4 treatments of 75 r each. It is our impression that fewer roentgen-ray treatments were required for the eruption than if the Vioform-hydrocortisone had not been used.

It is our opinion that anogenital lichenification is benefited by the use of Vioform-hydrocortisone regularly and that where staining is not too objectionable, the use of this medication is one of the most helpful and least irritating topical medicaments.

The combination of alternating tar for night use and the daytime application of the Vioform-hydrocortisone cream is permissible in lichen simplex. Certainly the medication is not a cure-all for this difficult eruption. It is, however, one of our most useful approaches.

Lichen Sclerosus et Atrophicus.—Three women with lichen sclerosus et atrophicus of the anogenital area were treated with Vioform-hydrocortisone cream. There was no irritation or untoward effects from the topical use of the cream. The cream was effective in controlling the primary complaint of itching and the symptoms of burning that were present. From one to three daily applications were required. No incidence of moniliasis complicating its use occurred. Clearing of the lichen sclerosus et atrophicus did not occur in any of the patients. We believe that patients with lichen sclerosus et atrophicus can be made comfortable and the subjective symptoms palliated by the use of Vioform-hydrocortisone cream, but the course of the disease is unaltered.

Seborrheic Dermatitis. — Vioform-hydrocortisone has perhaps its greatest usefulness in the management of seborrheic dermatitis. This is particularly true of seborrheic dermatitis of the folds. Control of the disagreeable symptoms is usually prompt. The cream is prescribed for daytime application for dermatoses of the face and usually can be used without disagreeable staining of gray hair if the patient is careful in its application. Covering the hair with scarfs or suitable caps during the day offers protection against staining women's hair. Seborrheic dermatitis is a recurrent disease which can be completely cleared, but which either is easily reacquired or may strike again with suddenness. We insist on the use of conventional therapy for controlling seborrheic dermatitis of the scalp in all cases. After the dermatitis has been cleared over the affected sites, the medication can be discontinued in some perhaps permanently and others for periods of remission of varying lengths. The combination of Vioform-hydrocortisone with other antiseborrheic drugs, except mercury, is permissible.

Twenty patients with seborrheic dermatitis were treated. These included 5 with involvement of face, lids, ears, and neck; 2 of the face and axilla; 3 of the axilla alone; 2 of axilla and crura; and 8 of the anogenitocrural areas. We were favorably impressed with the efficiency of the medication in this disorder. Having used Vioform cream for many years for seborrheic dermatitis, we think the combination of Vioform-hydrocortisone is a decisive improvement in therapy for this common and disagreeable dermatitis.

Atopic Dermatitis.—The principle of topical treatment in atopic dermatitis is essentially medical splinting. If one can prescribe topical remedies which will control the symptoms of burning, itching, and local discomfort so that the patient is not miserable, scratching and traumatizing the skin, the body's defenses frequently will partially or even completely clear the eruption. The topical therapy, therefore, is a means of control and not a cure in atopic dermatitis. Often there are varying degrees of dryness and ichthyosis present. Realizing the complexity of this disease we have found that topical therapy offers these patients with limited atopic dermatitis perhaps more than any other form of therapy at our command in medicine today. This of course is exclusive of changing environment, which is most often out of the question, and long term corticoid therapy, which is not without danger. If topical therapy is effective, it usually is obvious in a period of a few hours to a few days.

Fifteen patients with atopic dermatitis were treated with Vioform-hydrocortisone cream. Both infants and young adults were included in the group. The duration of the disease varied from a few weeks to 15 years. In the 15 patients observed, the larger the area of the body involved, the less likely the Vioform-hydrocortisone was effective. We observed that in children and in young adults with limited atopic dermatitis the control usually was excellent. Ten of the 15 patients had excellent control by using the cream. The most severe case that we treated had essentially generalized involvement but where the patient could apply the Vioform-hydrocortisone cream several times daily, those areas were controlled fairly satisfactory. However, there was so much of the skin surface involved it became apparent that its usefulness in this particular case was limited. In a young child with severely thickened and weeping patches of atopic dermatitis, a paired comparison with other creams and lotions containing hydrocortisone was made, and the mother preferred using the medications which stained less although there was benefit from Vioform-hydrocortisone cream. We found Vioform-hydrocortisone cream helpful in atopic dermatitis involving the hands and body folds.

Dermatitis Eczematosis of Hands.—A select group of 24 patients with hand eczema were treated with Vioform-hydrocortisone cream. Patch tests were done on a number of these individuals, and no positive reactions were demonstrated to common contact allergens. It was our impression that this group of patients (23 women and 1 man) were suffering from an alkali type of eczematous eruption as their primary difficulty. We, therefore, tried to coach these

individuals in the chief objective of treatment, namely, reducing the exposure to irritants by decreasing the number of times the hands are washed and by giving the hands a rest from dishes and household chores as much as possible. Rubber gloves were not recommended since many are not able to profit by the use of a protective glove when the eczema of the hands is pronounced. Most of the patients in this series were intelligent and cooperative and could reduce the number of times they wash their hands and the amount of wet work done. It is our belief that many eczematous eruptions of the hands are on a nonallergic basis and are due to insidious irritants. Many of the people who have hand eczemas have a low tolerance for alkalies and common irritating substances which the housewife so frequently must handle in her day's work.

We found that Vioform-hydrocortisone cream relieves the itching, promotes healing, and acts as a mild bacteriostatic drug. In years past, Vioform cream and ointment have been one of our most useful remedies in the management of hand eczemas. In our experience, the use of Vioform-hydrocortisone is superior to the Vioform alone. Patients with atopic dermatitis plus an alkali damage also benefited by Vioform-hydrocortisone. We believed that several of the women had a combination of atopic dermatitis and alkali damage dermatitis. Comparisons with hydrocortisone-Vioform on one hand and hydrocortisone lotion, a 1 per cent tar paste, or hydrocortisone ointment on the other were carried out. Vioform-hydrocortisone cream was preferred in these paired comparisons. None of the patients found the cream unacceptable or irritating.

The results in the group as a whole were satisfactory. We considered the use of Vioform-hydrocortisone cream effective in controlling the disagreeable symptoms, and if the patient was able to live within the limits of his tolerance for alkalies, the regimen of reducing the activity and the cream seemed helpful. Relapses occurred when "business as usual" was practiced by a few of the patients. It must be emphasized that Vioform-hydrocortisone cream is not a cure for eczemas of the hands. One must have adequate knowledge of the various etiologic factors responsible for eczemas of the hands and attempt to remedy the causative factor or factors as the approach to the problem. Vioform-hydrocortisone cream is one of the most helpful medications at our disposal in dealing with the topical treatment of patients with hand eczema.

Psoriasis.—One male patient with eczematized psoriasis of the hands was treated with Vioform-hydrocortisone cream for approximately 6 weeks. The eczematization slowly improved. The use of tars plus ultraviolet light caused remission of the process. Two women with psoriasis of the anogenital area were observed. In one there was a complicating moniliasis which responded to Mycostatin suppositories. The combination of Vioform-hydrocortisone plus roentgen-ray therapy was effective in bringing about a remission. The Vioform-hydrocortisone cream controlled the marked symptoms of burning and a scalded feeling. The second patient had a recurrence of psoriasis of the anogenital and umbilical sites. Vioform-hydrocortisone cream was helpful in bringing about a remission of the dermatitis in these areas.

SUMMARY AND IMPLICATIONS

The combination of Vioform and hydrocortisone has proven to be one of the most valuable topical remedies for the treatment of a number of dermatoses. These include seborrheic dermatitis, particularly seborrheic dermatitis of the face, ears, neck, and folds. The drug was found to be useful in controlling nummular eczema and eczematoid eruptions of the hands due to atopic dermatitis and alkali damage type of irritation. Healing hand eczemas depends on correcting the causative mechanism, and in the cases studied this apparently was accomplished by reducing alkali damage.

Atopic dermatitis of limited areas in both adults and children responded well and was controlled by the topical use of Vioform-hydrocortisone cream. Lichen simplex chronicus frequently was benefited markedly by topical Vioform-hydrocortisone. The combination did not interfere with the use of roentgen-ray therapy or tar preparations. It is our impression that fewer roentgen-ray treatments were required to bring about a remission of lichen simplex if Vioform-hydrocortisone was used simultaneously. There was no incidence of irritation or allergic eczematous contact dermatitis in the 84 cases treated. The chief disagreeable quality of the topical remedy is its mild staining property.

We believe Vioform-hydrocortisone cream is one of the most versatile and useful drugs at our disposal for topical therapy.

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CASE REPORTS

Human Myiasis

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MYIASIS IN LIVESTOCK and household pets such as dogs and cats has always been a serious problem. The United States Department of Agriculture estimated that farmers and ranchers lost $15,000,000 from this infestation from 1940 to 1944. Articles have appeared in the medical literature[1, 4-7, 10, 15, 17, 19] concerning human myiasis. Most of these were reports of cases prior to modern day sanitation and chemical insecticides. Furthermore, most of these cases involved the mentally deficient, the very young or very old, or those with extremely low standards of personal hygiene. Two of our cases were in young children in the latter category. However, the case receiving chief emphasis in this report, case 3, could be assigned to none of these categories. This boy was 16 years of age, mentally alert, and from an urban family of comfortable socioeconomic background. This factor plus the massiveness of his infestation and a discussion of the chemotherapy of human myiasis comprise the justification for this report.

The insect order Diptera, or two winged flies, contains many representatives harmful to the health and general well being of man, either by directly causing pathogenic conditions or by transmitting disease-producing organisms. Outstanding among the destructive flies are those which invade tissues or organs in their larval stages, producing the pathogenic condition known as myiasis.

Authorities usually classify myiasis as to the parts of the body affected, that is, traumatic or wound myiasis; aural myiasis; myiasis of the nose, mouth, and sinuses; ocular myiasis; myiasis of vagina and anal region; bladder and urinary myiasis; cutaneous myiasis; and enteric myiasis.[8] The myiasis causative agents fall into three somewhat overlapping groups —specific, semispecific, and accidental myiasis producers.[12]

Specific myiasis producing larvae feed on living tissues or organs and ordinarily do not utilize carrion as secondary developmental media. The most important of this group is the primary screwworm fly, Cochliomyia hominivorax (Coquerel), formerly called Callitroga americana (Cushing and Patton) and a good many other scientific names. Widely distributed in neoarctic and neotropical regions, it is especially prevalent in the southern United States.

Laake and others[9] have worked out the biology of the screwworm fly in detail. Eggs are laid in masses of 10 to 393 on dry tissue adjacent to wounds or suppurating body openings. The eggs hatch in 11 to 21 hours, and the larvae penetrate the broken skin in a characteristic head-downward position with the posterior spiracles exposed to the outer air. They are gregarious and gather in pockets. After feeding 4 to 8 days, the larvae drop off the host and enter the ground to pupate. The adult flies emerge in a week or two during the summer and after as long as a month or two in the winter. Adults are believed to live about 30 days, during which time they may fly up to 10 miles. The first heavy frost usually kills the adults, and a new brood does not emerge from pupae until spring. However, in South Texas during mild winters the screwworm life cycle is lengthened but uninterrupted.

In contrast to the primary screwworm larvae a majority of the specific myiasis producers commonly enter the unbroken skin. Representative of this group are the cattle grubs, Hypoderma spp.; the horse bots, Gasterophilus spp.; and the sheep bot, Oestrus ovis. Adult flies of the horse bots and cattle grubs occasionally lay eggs on human beings, and the larvae wander through connective tissue, causing a cutaneous larva migrans sometimes called creeping eruption. Even vital organs including the brain and spinal cord may be invaded. The pain and discomfort associated with this type of parasitism, especial-

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Human myiasis generally occurs in the mentally dificient, the very young or old, or those with low hygienic standards. One of the 3 cases reported here involved a 16 year old boy, mentally alert, and from a comfortable socioeconomic background, whose scalp harbored 600 to 700 larvae. The insects causing myiasis and chemicals used in treating it (primarily chlorinated hydrocarbons and chloroform) are reviewed.

ly when the cattle grub is involved, are usually so intense that medical attention is sought before the insect develops beyond the first larval stage. In recent years the State Department of Health Entomology Section has received for identification several first instar cattle grubs which were removed from human beings. The sheep bot normally parasitizes nasal and adjacent passages of sheep, but man also may be attacked. Most medical reports concern ocular myiasis, caused by the adult flies depositing living young in or near human eyes.

Semispecific myiasis producers include a large number of flies which normally develop in decaying animal or even plant materials, but which occasionally lay eggs or deposit larvae in diseased tissues of man or in body openings with fetid discharges. In this group are the secondary screwworm fly, Cochliomyia macellaria (Fabricius), the blue and green bottle flies, and the flesh flies, Sarcophaga spp. The Sarcophaga flies are of interest in that they give birth to living young. Some of these larvae may not remain in the necrotic areas, but also invade living tissues. As late as the 1930's there was considerable interest in the utilization of certain of these larvae to treat slow healing wounds. Sterile maggots were used to remove necrotic tissue, pus, and pus forming bacteria and to promote healing by the excretion of such products as allantoin and urea.[14]

The Diptera, which may be called accidental myiasis producers, are a heterogeneous group of flies, the larvae of which sometimes enter the body, most often being ingested with contaminated food or water. The larvae may maintain themselves in the gastrointestinal tract for a sufficient time to cause acute gastritis or enteritis.

CASE REPORTS

CASE 1.—This 3 year old Latin-American girl was presented to the Emergency Room at Brackenridge Hospital on July 18, 1957, with a complaint of a "rash" on the scalp which had been present approximately 3 weeks.

Physical examination revealed a poorly nourished child who appeared to be in acute distress. Vital signs were within normal limits. There was a generalized seborrhea of the scalp with patches of excoriation and exudate. Over the occipital region there was a 3 cm. circular, raised, indurated area which contained a crater-like perforation through which larvae could be observed. Several enlarged occipital lymph nodes were palpated.

Admission laboratory work consisted of routine blood and urine studies; both were within normal limits.

The patient received daily intramuscular injections of procaine penicillin 300,000 units, streptomycin 0.25 Gm., and dihydrostreptomycin 0.25 Gm. Sulfacetimide sodium lotion was applied to the scalp daily for 5 days with rapid resolution of the seborrheic areas. On July 23, under local anesthesia, mechanical debridement of the larvae infested area was performed. Approximately 50 larvae were removed, but it was thought that many remained relatively inaccessible because of extensive undermining. The wound was swabbed with an emulsion of 3 per cent Lindane in inert oils and packed with fine mesh gauze. The wound was inspected, swabbed with the Lindane emulsion, and packed daily for the remainder of the hospital course. The lesions were noted to be healing well and the patient was asymptomatic when discharged to the out-patient department on July 27.

CASE 2.—This 4 year old Latin-American boy was presented to the Emergency Room at Brackenridge Hospital on August 21, 1957, with a complaint of "sores on the head" which had been present about 2 weeks. A reliable history concerning the progression of the disorder was unobtainable.

Physical examination revealed a well developed, well nourished, irritable boy in no acute distress. Temperature was 102 F. rectally, respiration 24 per minute, pulse 94 per minute. Positive physical findings were limited to the scalp where there was noted a fairly diffuse eczematoid seborrhea involving approximately two-thirds of the total area of the scalp. Over the occipital region there were two raised, circular areas of induration approximately 1.5 to 2 cm. in diameter, each containing a crater-like perforation through which larvae could be observed. There were several enlarged, apparently nontender occipital and posterior cervical lymph nodes.

Admission laboratory data consisted of routine blood and urine analyses, neither of which was remarkable.

Under local anesthesia, each of the indurated areas was opened with a cruciate skin incision and approximately 30 to 40 larvae were removed. It was noted that there was considerable undermining of the surrounding scalp by the larvae, and it was believed that all of the larvae were not removed. The wounds were then swabbed with an emulsion of 3 per cent Lindane in inert oils and packed open with fine mesh gauze. The remainder of the scalp lesions were treated with daily application of sulfacetamide sodium lotion and Neomycin ointment. The patient received daily intramuscular injections of procaine penicillin 300,000 units, streptomycin 0.25 Gm., and dihydrostreptomycin 0.25 Gm. The open wounds were inspected, swabbed with the Lindane emulsion, and packed daily for the following 3 days. The patient became afebrile after the second day. One or two dead larvae were removed daily as the wounds were inspected. The incised wounds were noted to be healing rapidly and the remainder of the scalp lesions were noted to be clearing when the patient was discharged to the out-patient department after a total hospital course of 7 days.

Unfortunately, because the preceding 2 patients were children of itinerants, no follow-up has been available.

CASE 3.—This patient, a 16 year old boy, except as noted was in perfect health. He had been treated intermittently by one of us (CHM) since 1952 for a "psoriasiform" seborrhea of the scalp which at times flared rather severely. On November 1, 1957, the patient appeared in the office with an acute impetigo of the entire scalp with lymphadenitis of the occipital and cervical nodes. This infection began 36 hours previously. Penicillin, 600,000 units, was given intramuscularly, and tetracycline was prescribed by mouth. In addition, the hair, which was long, was cut short, and an antiseptic shampoo for purposes of debridement was prescribed. Also, local application of Chloromycetin ointment was used. Within 48 to 72 hours the scalp was clean and free of infection or dermatitis except for erythema. The patient returned to school the morning of November 4, thinking himself well. Toward noon of that day his scalp began to swell and quickly

became quite tender. By midafternoon, he was definitely ill with severe scalp pain and fever. He was brought back to the office late that afternoon. At this time, he was obviously sick. His temperature was 102 F.; cervical and occipital adenopathy was severe. Two-thirds of the scalp was tumid with multiple crater-like areas thereon. When the examining light was turned on, the resultant warmth immediately caused marked activity and motion and numerous larvae were seen to appear from the openings (fig. 1a). Several were manually extracted at this time. A skull roentgenogram was made and was negative. The parents were instructed to shave the scalp and apply Vioform cream. On November 5, the patient was hospitalized and consultation from the Section of Entomology of the Texas State Department of Health was requested.

Under general anesthesia the head was shaved (fig. 1b) and cruciate as well as linear incisions to lay open the many channels (determined by probe) were made. Recesses and cul-de-sacs seemed innumerable. In the presence of the two entomologists (R.B.E. and J.S.W.) approximately 100 larvae were manually extracted. These larvae were immediately taken to the State Department laboratory for identification (see below). The next 2 hours were spent by two of us, manually extracting about 500 additional larvae of varying sizes. This extraction was accomplished by holding a chloroform soaked sponge over an area for a few seconds and grasping the larvae as they emerged from inner recesses for air. Finally, after 3 hours, the procedure was terminated because we feared that further use of chloroform might result in absorption with possible liver damage. The scalp was then covered with Vioform cream and bandaged. For the next 6 days, at dressings, manual epilation was accomplished, using chloroform soaked sponges, and many more larvae, alive and dead, were extracted. For the next 8 days only dead larvae were removed from areas which were semisuppurative. About 100 larvae were removed at these postoperative dressings. Healing was complete with no sequelae except small scars caused by incisions. Another skull roentgenogram prior to dismissal showed no invasion by the larvae.

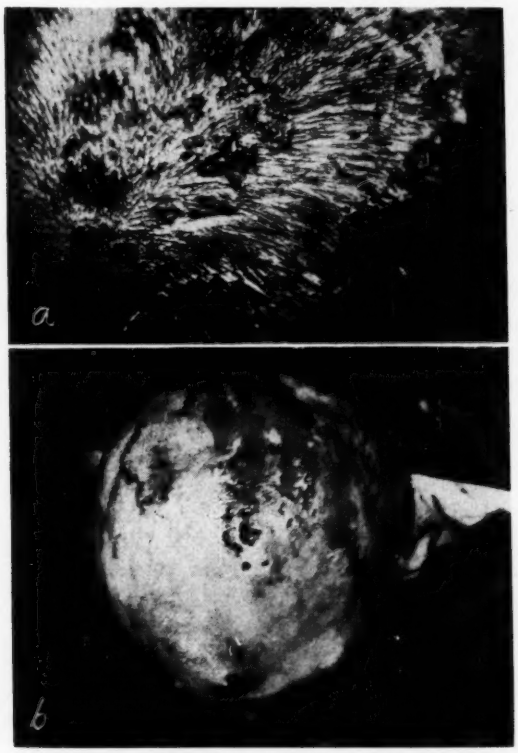

Fig. 1. Case 3. **a.** The head of the patient at the time the diagnosis of myiasis was made, November 4 in the office. **b.** The patient on the operating table just prior to general anesthesia and manual extraction of larvae from the shaved head November 5. In both pictures (taken from 35 mm. Kodachrome transparencies) larvae can be seen protruding from craters.

Seventy-five of the larvae removed from the scalp of the 16 year old boy November 6 were retained for specific identification. Twenty-five were put into an alcoholic preservative and determined to be primary screwworm flies, Cochliomyia hominivorax (Coquerel). The remainder were held alive on scarified lean beefsteak over sand in an attempt to obtain adults to confirm the specific identification. Primary screwworm flies are difficult to rear on nonliving animal tissues, but fairly mature larvae will sometimes complete their development when removed from living to dead tissues. Several of the larvae burrowed into the sand and pupated within a few days, and adult, primary screwworm flies began emerging November 20.

The some 700 larvae removed from the boy's scalp were in all three larvae developmental stages. The large number of larvae indicated that at least 2 and probably 3 batches of eggs were laid on the scalp. The fact that mature larvae were present was proof that the infestation was of several days' duration when we first saw the boy.

CHEMICALS FOR TREATMENT

Screwworm infestation is a well known, relatively common disease found in the cattle industry. Especially in moist years when there is an unusually large fly crop, the incidence of screwworm infestation in newborn calves increases and becomes a real economic problem.

Most of the newer screwworm remedies contain a chlorinated hydrocarbon dispersed in various relatively inert oil or grease vehicles. The most commonly used hydrocarbon is hexachlorocyclohexane (Lindane) in about 4 per cent concentration which is lethal to the fly larvae. The vehicles, such as oils of pine or eucalyptus, are mildly antiseptic but serve mainly to discourage adult flies from laying new batches of eggs by their repulsive odors.

An older, simpler, and extremely effective treatment is still preferred by many cattlemen. This consists of pouring a small amount of chloroform directly into the infected wound and covering it with a pine tar preparation.

Consideration of the two basic preparations (chlorinated hydrocarbons and chloroform) was made in the selection of the treatment of choice for patient 3. Chlorinated hydrocarbon insecticides, of which DDT (chlorophenothane) is the prototype,

include the similar compounds, Lindane and Chlordane.[11, 13] They are all effective insecticides, but they are also convulsant poisons in warm blooded animals.[2]

There are innumerable examples of safe usage of these chemicals in humans. Thousands of people were treated prophylactically against pediculosis with 5 per cent DDT powder during World War II. Many cases of scabies have been treated with 1 per cent DDT lotions and ointments (Topocide and Paracin) and with 1 per cent gamma isomer of hexachlorocyclohexane (Lindane, Kwell).[3, 18] No cases of poisoning from cutaneous absorption resulting from these types of treatment have been reported; however, 1 industrial death has been reported. A young woman who spilled more than 100 cc. of concentrated Chlordane on her dress died in 40 minutes before receiving any medical attention.[2]

The signs and symptoms of intoxication from these chemicals are similar. Lindane poisoning may cause restlessness, hyperexcitability, rapid and deep respiration, increased micturition, spasms, convulsions, respiratory paralysis, collapse, and death.[16]

It is speculative as to how much of a chlorinated hydrocarbon could be absorbed from multiple open ulcers in a vascular area such as the scalp; however, the potential hazard is still quite real. Von Oettingen warned that Chlordane . . . "Contact with the skin in any form may be dangerous . . . hands contaminated should be washed off immediately and clothes removed. Protective gloves should be worn."[16] The amount of chloroform potentially absorbable and the lesser degree of toxicity of this chemical are quite apparent. It was for these reasons that this alternate method of treatment was selected in case 3.

As mentioned, follow-up of cases 1 and 2 was impossible, but at dismissal of these patients no toxic sequelae from the use of Lindane were detectable. However, it must be noted that the areas involved in these 2 cases were quite small compared to that of case 3.

SUMMARY

Three cases of human myiasis are reported. Two patients had small areas of involvement and were young children of substandard economic and sanitary habits. Case 3 was a massive infestation of the scalp in a healthy (except for a recurrently severe seborrheic dermatitis) 16 year old boy whose sanitary and socioeconomic status was average to above average. Some 600 to 700 larvae were removed from this patient.

Lindane and manual epilation was used in cases 1 and 2. Chloroform soaked sponges and manual epilation was used in case 3. The pharmacology of drugs used in screwworm infestations is discussed.

It is of interest that all 3 patients had a seborrheic dermatitis of the scalp.

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Dr. McCuistion and Schloch, 609 Capital National Bank Building, Austin.

Dr. McKee, Brackenridge Hospital, Austin.

Mr. Wiseman and Dr. Eads, Texas State Department of Health, Austin.

More Older People Buy Insurance

The number of older persons with health insurance is growing at a much faster rate than the senior citizen population itself, according to the Health Insurance Institute.

Citing a June, 1958, study of the United States Department of Health, Education, and Welfare, the institute shows that the number of Americans 65 and over increased by 13 per cent from March, 1952, to September, 1956, while the number of this group covered by health insurance went up 56 per cent. The growth trend held true over the 1952-1956 span for each age bracket among older persons.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, San Antonio, April 18-21, 1959 (Conference of County Medical Society Officials and Symposium on Legislation, Jan. 24, 1959). Dr. Howard O. Smith, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Exec. Secy.

American Medical Association, Clinical Meeting, Minneapolis, Dec. 2-5, 1958. Dr. Gunnar Gundersen, La Crosse, Wis., Pres.; Dr. F. J. L. Blasingame, 535 North Dearborn, Chicago 10, Exec. Vice-Pres.

Current Meetings

NOVEMBER

American Society of Clinical Pathologists, Chicago, Nov. 3-7, 1958. Dr. Harry P. Smith, New York, Pres.; Dr. Clyde G. Culbertson, 1040 W. Michigan, Indianapolis 6, Secy.

Radiological Society of North America, Chicago, Nov. 16-21, 1958. Dr. Leo G. Rigler, Los Angeles, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, New Orleans, Nov. 3-6, 1958. Dr. W. Kelly West, Oklahoma City, Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Eighth District Society, Galveston, Nov. 14, 1958. Dr. John H. Childers, Galveston, Pres.; Dr. M. Warren Hardwick, 839 E. Mulberry, Angleton, Secy.

Tenth District Society, Beaumont, Nov. 11, 1958. Dr. B. F. Pace, Beaumont, Pres.; Dr. W. J. Poshataske, Silsbee, Secy.

Blackford Memorial Cancer Lectures, Denison, Nov. 11, 1958. Dr. R. G. Gerard, 509 S. Mirick, Denison, Chm.

DECEMBER

American Academy of Dermatology and Syphilology, Chicago, Dec. 6-11, 1958. Dr. James R. Webster, Chicago, Pres.; Dr. R. R. Kierland, Mayo Clinic, Rochester, Minn., Secy.

Southern Surgical Association, Boca Raton, Fla., Dec. 9-11, 1958. Dr. James D. Rives, New Orleans, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore 18, Secy.

Private Clinics and Hospitals Association of Texas, Dallas, Dec. 14-15, 1958. Dr. Joe Shepperd, Burnet, Pres.; Mr. Henry E. Taylor, Medical Arts Building, Dallas, Executive Secy.

Texas Academy of Internal Medicine, Galveston, Dec. 6-7, 1958. Dr. A. W. Harris, Dallas, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Division, American Cancer Society, Austin, Dec. 4, 1958. Dr. J. Layton Cochran, San Antonio, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Rheumatism Association, Galveston, Dec. 5, 1958. Dr. W. W. Bondurant, San Antonio, Pres.; Dr. J. Morris Horn, 3707 Gaston, Dallas, Secy.

Texas Society of Ophthalmology and Otolaryngology, Houston, Dec. 5-6, 1958. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.

Texas State Board of Medical Examiners, Fort Worth, Dec. 4-6, 1958. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.; Miss Luanna Knox, Assistant Secy.

National and Regional

American Academy of Allergy, Chicago, Feb. 9-11, 1959. Dr. Max Samter, Oak Park, Ill., Pres.; Dr. Bram Rose, Royal Victoria Hospital, Montreal, Canada, Secy.

American Academy of General Practice, San Francisco, April 6-9, 1959. Dr. Holland T. Jackson, Fort Worth, Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.

American Academy of Ophthalmology and Otolaryngology. Dr. LeRoy A. Schall, Boston, Pres.; Dr. W. L. Benedict, 15 Second St. S.W., Rochester, Minn., Secy.

American Academy of Pediatrics, Chicago, Oct. 20-23, 1959. Dr. Stewart H. Clifford, Brookline, Mass., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.

American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.

American Association for Thoracic Surgery, Los Angeles, April 21-23, 1959. Dr. Michael E. DeBakey, Houston, Pres.; Dr. Hiram T. Langston, 7730 Corondelet Ave., St. Louis 5, Secy.

American Association of Genito-Urinary Surgeons, Absecon, N. J., April 15-17, 1959. Dr. John A. Taylor, New York, Pres.; Dr. W. J. Engel, 2020 E. 93rd St., Cleveland 6, Secy.

American Association of Obstetricians and Gynecologists. Dr. William F. Mengert, Chicago, Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.

American Cancer Society. Dr. L. T. Coggeshall, Chicago, Pres.; M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.

American College of Allergists, San Francisco, March 15-20, 1959. Dr. Merle W. Moore, Portland, Ore., Pres.; Dr. M. Coleman Harris, 450 Sutter St., San Francisco, Secy.

American College of Chest Physicians, Atlantic City, June 3-7, 1959. Dr. Donald R. McKay, Buffalo, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.

American College of Gastroenterology. Dr. C. Wilmer Wirts, Philadelphia, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.

American College of Obstetricians and Gynecologists, Atlantic City, April 5-9, 1959. Dr. R. Glen Craig, San Francisco, Pres.; Dr. John C. Ullery, 15 S. Clark St., Chicago 3, Secy.

American College of Physicians, Chicago, April 20-24, 1959. Dr. Dwight L. Wilbur, San Francisco, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.

American College of Radiology, Chicago, Feb. 6-7, 1959. Dr. Vincent W. Archer, Charlottesville, Va., Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.

American College of Surgeons. Dr. William L. Estes, Bethlehem, Pa., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.

American Congress of Physical Medicine and Rehabilitation, Minneapolis, Aug. 30-Sept. 4, 1959. Dr. Donald L. Rose, Kansas City, Kan., Pres.; Frances Baker, One Tilton, San Mateo, Calif., Secy.

American Dermatological Association, Atlantic City, June 1-4, 1959. Dr. J. Lamar Callaway, Durham, N. C., Pres.; Dr. Wiley M. Sams, 25 Southeast 2nd Ave., Miami, Secy.

American Gastroenterological Association, Atlantic City, June 5-6, 1959. Dr. C. J. Barborka, Chicago, Pres.; Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.

American Gynecological Society, Hot Springs, Va., May 25-27, 1959. Dr. Lewis C. Scheffey, Philadelphia, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd. N.W., Washington 7, D. C., Secy.

American Heart Association. Dr. Robert W. Wilkins, New York, Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.

American Hospital Association, New York, Aug. 24-27, 1959. Mr. Tol Terrell, San Angelo, Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago 10, Executive Director.

American Laryngological, Rhinological, and Otological Society, Hot Springs, Va., March 10-12, 1959. Dr. G. D. Hoople, Syracuse, N. Y., Pres.; Dr. C. S. Nash, 708 Medical Arts Bldg., Rochester, N. Y., Secy.

American Neurological Association, Atlantic City, June 15-17, 1959. Dr. Bernard J. Alpers, Philadelphia, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.

American Ophthalmological Society, Hot Springs, Va., May 28-30, 1959. Dr. Derrick Vail, Chicago, Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.

American Orthopaedic Association, Lake Placid, N. Y., June 15-18, 1959. Dr. C. Leslie Mitchell, Detroit, Pres.; Dr. Lee Ramsay Straub, 535 East 70th St., New York 21, Secy.

American Pediatric Society, Buck Hill Falls, Pa., May 6-8, 1959. Dr. Joseph Stokes, Jr., Philadelphia, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.

American Proctologic Society, Atlantic City, June 15-18, 1959. Dr. Karl Zimmerman, Pittsburgh, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.

American Psychiatric Association, Philadelphia, April 26-May 1, 1959. Dr. Francis J. Gerty, Chicago, Pres.; Dr. C. H. Hardin Branch, 156 Westminister Ave., Salt Lake City, Secy.

American Public Health Association. Roy J. Morton, Oak Ridge, Tenn., Pres.; Dr. Berwyn F. Mattison, 1790 Broadway, New York 19, Executive Secy.

American Society of Anesthesiologists. Dr. Ralph S. Sappenfield, Miami 37, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.

American Surgical Association, San Francisco, April 15-17, 1959. Dr. I. S. Ravdin, Philadelphia, Pres.; Dr. William Altemeier, Cincinnati General Hospital, Cincinnati 29, Secy.

American Urological Association, Atlantic City, April 20-23, 1959. Dr. Adolph Kutzmann, Los Angeles, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.

Association of American Physicians and Surgeons, Fort Worth, April 2-4, 1959. Dr. Mal Rumph, Fort Worth, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

International College of Surgeons, U. S. Chapter, Miami Beach, Jan. 4-7, 1959. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.

National Tuberculosis Association, Chicago, May 24-29, 1959. Dr. Mario M. Fischer, New York, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Southern Psychiatric Association. Dr. Frank Luton, Nashville, Pres.; Dr. Iverson O. Brownell, Greenville, S. C., Secy.

Southwest Allergy Forum, Houston, April 26-28, 1959. Dr. Richard L. Etter, Houston, Pres.; Dr. Richard H. Jackson, 156 Hermann Professional Building, Houston, Secy.

Southwest Regional Cancer Conference. Dr. O. J. Wollenman, Fort Worth, Chm.; Mrs. Ira Frances Ball, 264 W. 11th, Fort Worth, Secy.

Southwestern Medical Association, Roswell, N. Mex., Oct.-Nov., 1959. Dr. A. R. Clausen, Albuquerque, Pres.; Dr. M. D. Thomas, 1501 Arizona St., 12-D, El Paso, Secy.

Southwestern Society of Nuclear Medicine, New Orleans, March, 1959. Dr. Herbert C. Allen, Jr., Houston, Pres.; Dr. J. R. Maxfield, Jr., 2711 Oak Lawn Avenue, Dallas, Secy.

Southwestern Surgical Congress, Denver, March 30-April 2, 1959. Dr. Louis M. Overton, Albuquerque, Pres.; Mary O'Leary, 813 Medical Arts Bldg., Oklahoma City, Exec. Secy.

Tri-State Medical Assembly. Dr. Jack Guthrie, Camden, Ark., Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

United States-Mexico Border Public Health Association, Brownsville and Matamoros, Tamaulipas, Mexico, March 30-April 3, 1959. Albert O. Irigoyen, Mexico, D.F., Pres.; Dr. Jorge Román, 243 United States Court House, El Paso, Secy.

State

South Central Association of Blood Banks, Austin, February, 1959. Dr. Louis J. Manhoff, Jr., San Antonio, Pres.; L. Ruth Guy, Ph.D., Room 1101, Stoneleigh Hotel, Dallas, Secy.

Texas Academy of General Practice, Galveston, Oct. 4-7, 1959. Dr. Charles E. Oswalt, Jr., Fort Stockton, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.

Texas Air-Medics Association, San Antonio, April, 1959. Dr. R. Henry Harrison, Bryan, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association for Mental Health, Fort Worth, March 12-14, 1959. Dr. Frank Schooner, Fort Worth, Pres.; Mr. John Lane, 2410 San Antonio, Austin, Executive Director.

Texas Association of Obstetricians and Gynecologists, Fort Worth, Feb. 14, 1959. Dr. Jesson L. Stowe, El Paso, Pres.; Dr. Oran V. Prejean, 1317 N. Washington St., Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, San Antonio, April 19, 1959. Dr. David M. Cowgill, San Benito, Pres.; Dr. B. M. Primer, 2709 Rio Grande, Austin.

Texas Chapter, American College of Chest Physicians, San Antonio, April 19, 1959 Dr. J. O. Armstrong, Dallas, Pres.; Dr. Carlos J. Quintanilla,, Box 592, Harlingen, Secy.

Texas Club of Internists. Dr. D. D. Warren, Waco, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society, San Antonio, April 20, 1959. Dr. Earl L. Loftis, Dallas, Pres.; Dr. E. N. Walsh, 1410 Pruitt St., Fort Worth 4, Secy.

Texas Diabetes Association, San Antonio, April 19, 1959. Dr. Merton Minter, San Antonio, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Geriatrics Society, Austin, Nov. 13-15, 1958. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. O. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association, San Antonio, April 19, 1959. Dr. William B. Adamson, Abilene, Pres.; Ernest T. Guy, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association, Houston, May 11-14, 1959. Mr. W. P. Earngey, Jr., Fort Worth, Pres.; Mr. O. Ray Hurst, 2208 Main, Dallas, Executive Director.

Texas Industrial Medical Association, San Antonio, April 19, 1959. Dr. Wendell H. Hamrick, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

Texas Neurophychiatric Association, San Antonio, April 19, 1959. Dr. Samuel R. Snodgrass, Galveston, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, San Antonio, April 19, 1959. Dr. Harold Beasley, Fort Worth, Pres.; Dr. James Scruggs, 2223 Austin, Waco, Secy.

Texas Orthopedic Association, San Antonio, April 20, 1959. Dr. Louis J. Levy, Fort Worth, Pres.; Dr. Margaret Watkins, 3503 Fairmount, Dallas, Secy.

Texas Pediatric Society, Fort Worth, Houston, 1959. Dr. Bruce A. Knickerbocker, Dallas, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Physical Medicine and Rehabilitation Society, San Antonio, April 19, 1959. Dr. Vann S. Taylor, Dallas, Pres.; Dr. Lewis A. Leavitt, Veterans Administration Hospital, Houston, Secy.

Texas Proctologic Society, New Orleans, February, 1959. Dr. C. P. Hardwicke, Austin, Pres.; Dr. H. Gray Carter, 915 St. Joseph St., Dallas, Secy.

Texas Public Health Association, San Antonio, Feb. 22-25, 1959. Dr. D. R. Reilly, San Angelo, Pres.; Mr. Joseph N. Murphy, Jr., Box 4012, Austin 51, Executive Secy.

Texas Radiological Society, Dallas, Jan. 30-31, 1959. Dr. R. F. Wertz, Amarillo, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Society of Anesthesiologists, San Antonio, April 19, 1959. Dr. M. M. Rosenzweig, San Antonio, Pres.; Dr. M. T. Jenkins, Parkland Hospital, Dallas, Secy.

Texas Society of Athletic Team Physicians, San Antonio, April 18, 1959. Dr. Edward T. Smith, Houston, Pres.; Dr. Jack Brannon, 2715 Fannin, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, San Antonio, April 19, 1959. Dr. O. P. Griffin, 800 5th Avenue, Fort Worth, Pres.; Dr. A. C. Broders, Jr., Scott and White Clinic Hospital, Temple, Secy.

Texas Society of Pathologists, San Antonio, April 21, 1959. Dr. John H. Childers, Galveston, Pres.; Dr. Marvin H. Grossman, Box 57, Dallas, Secy.

Texas Society of Plastic Surgeons, San Antonio, April 18, 1959. Dr. Baron Hardy, Houston, Pres.; Dr. Raymond Brauer, 6615 Travis, Houston, Secy.

Texas Surgical Society, Austin, April 5-7, 1959. Dr. Albert Hartman, San Antonio, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, San Antonio, April 19, 1959. Dr. G. V. Brindley, Temple, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association, San Antonio, March 19-21, 1959. Dr. John W. Middleton, Galveston, Pres.; Miss Pansy Nichols, P. O. Box 6158, Austin 21, Executive Director.

Texas Urological Society, San Antonio, Jan. 24-25, 1959. Dr. Charles Hooks, Galveston, Pres.; Dr. Charles Hulse, 636 Moore Building, San Antonio.

District

First District Society, Fort Stockton, February, 1959. Dr. H. D. Garrett, El Paso, Pres.; Dr. E. S. Crossett, 1501 Arizona St., El Paso, Secy.

Second District Society, Lamesa. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.

Third District Society, Plainview, March, 1959. Dr. Robert H. Mitchell, Plainview, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fourth District Society. Dr. W. L. Smith, San Angelo, Pres.; Dr. Braswell S. Locker, 1501 11th St., Brownwood, Secy.

Fifth and Sixth Districts Society, Dr. O. L. Riley, Corpus Christi, Pres.; Dr. Thelma Frank, 1314 16th St., Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Ninth District Society, Huntsville, March 19, 1959. Dr. Lyman C. Blair, Houston, Pres.; Dr. James H. Sammons, Highlands, Secy.

Eleventh District Society, May, 1959. Dr. Ben Wilson, Tyler, Pres.; Dr. Phillip W. Taylor, 833 S. Beckham, Tyler, Secy.

Twelfth District Society, Marlin, Jan. 13, 1959. Dr. W. A. Chernosky, Temple, Pres.; Dr. Bernard Roser, Corsicana, Secy.

Thirteenth District Society, Wichita Falls, 1959. Dr. W. R. Sibley, Abilene, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. Charles Wise, Naples, Pres.; Dr. George Bennett, 402 S. Bolivar, Marshall, Secy.

Clinics

Dallas Southern Clinical Society, Dallas, March 23-25, 1959. Dr. C. D. Bussey, Dallas, Pres.; Millard J. Heath, 433 Medical Arts Bldg., Dallas 1, Executive Officer.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 26-28, 1959. Dr. Lawrence B. Reppert, 817 South Texas Bldg., San Antonio, Secy; S. E. Cockrell, 202 W. French Place, San Antonio, Exec. Secy.

New Orleans Graduate Medical Assembly, New Orleans, March 2-5, 1959. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference. Dr. J. B. Hathorn, Jr., 1500 8th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas, Houston, July 20-22, 1959. Dr. Herbert H. Harris, Houston, Pres.; Dr. C. Forrest Jorns, Secy., Exec. Office, 412 Jesse Jones Library Bldg., Houston 25.

Board Examinations

Texas State Board of Examiners in Basic Sciences, April, 1959. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Betty J. Anderson, Chief Clerk, 303 East Seventh, Austin.

MEDICOLEGAL NOTES

Permission to Operate Can Be Questionable

Should a physician operate on a minor when permission has been granted for the operation but not for blood transfusions during the operation?

This question arose with the case of an 18 year old patient in the East Texas Hospital who was in need of surgery. Her mother, who was a member of the sect of Jehovah Witnesses, had given her consent to the performance of the surgery, but in a separate letter had refused consent to the use of blood transfusions during such operation. The surgeon felt that he could not perform the surgery unless he was given permission to administer a blood transfusion in the event it became necessary.

The following questions were presented to the attorney general of Texas for an opinion:

1. Under these facts, may we perform the surgery using blood transfusions if necessary?

2. Could we in a similar case perform medically recognized surgery on a patient in one of our hospitals where the responsible relative or guardian refuses to consent to the performance of any surgery?

The attorney general answered these questions as follows:

> There is no statutory provision, as such, prohibiting a doctor from operating on a minor without the consent of the parent. The prohibition comes from the operation being a technical assault on the minor, for which the doctor is liable for damages as a matter of law and such damages are not "dependent upon the extent of the injuries to the minor child."*
>
> Therefore, if the surgeon under the circumstances of this request, performs the operation he will find himself in this position: (1) if blood transfusion becomes necessary and the doctor gives such blood transfusion, he has violated the consent of the parent and has performed an operation on a minor without consent of the parent and has committed technical assault for which he is liable for damages as a matter of law; (2) if blood transfusion becomes necessary and he fails to give blood transfusion, and injuries or death result therefrom, he is liable for the reason of such negligence.
>
> Thus, it is our opinion that the conditional consent of the parent in the instant case amounts to no consent at all. The surgeon will become liable for technical assault if the operation is performed. Therefore, unless your surgeon is willing to assume liability for technical assault, the answer to both of your questions must be "no."
>
> A surgeon employed by the Board for Texas State Hospitals and Special Schools may not operate on or give blood transfusions to a child where the parent has refused to consent to the same without incurring the possibility of civil liability.

Although this was a situation dealing with a state hospital, the law involved would be applicable as to the possible civil liability of the operating physician regardless of whether or not he was in private practice or connected with a governmental hospital or establishment.

The question then arises as to what, if anything, a physician in private practice could do if he was confronted with a situation such as this where he felt that if proper and complete medical care was not given a minor child it would result in death or serious harm to such child. There seems to be two courses of action which may be followed. The case of Mitchell v. Davis† represents the first. In this case the court had found the minor child to be a dependent and neglected child under the provisions of Arts. 2330-2337 R.C.S. Custody of this minor child had been awarded to the chief juvenile officer of Dallas County in order that the child, age 12, "may receive *proper medical care,* education, and maintenance . . . subject to the further orders of this court" (emphasis supplied).

It seems the child in this case probably was suffering from arthritis or complications following rheumatic fever and the condition of the child was growing steadily worse; at the time of the action of the court the life of the child was endangered. The evidence in the case showed that the father was deceased and that the mother of the child had refused to provide medical treatment. The child's mother denied the charge of child neglect and it was "evident that her rejection of orthodox medical treatment and adherence to home remedies and prayer, was because of religious belief in the fact of Divine Healing and her absolute faith in the power of religion to overcome all physical ailments and disease."

The appellate court, in its opinion, affirming the action of the trial court, stated:

> Medicines, medical treatment and attention, are in a like category with food, clothing, lodging and education as necessaries from parent to child, for which the former is held legally responsible. . . . It is the right and duty of parents under the law of nature as well as the common law and the statutes of many states to protect their children, to care for them in sickness and in health, and to do whatever may be necessary for their care, maintenance, and preservation, including medical attendance, if necessary. An omission to do this is a public wrong which the state, under its police powers, may prevent.
>
> . . . It is well settled that "Opposition to medical treatment because of religious belief does not constitute a defense to a prosecution for breach of a statutory duty to furnish a child with such treatment. Conscientious obedience to what the individual may consider a higher power or authority must yield to the law of the land where duties of this character are involved, and since a wicked intent is not an essential element of the crime, peculiarities

*Moss v. Rishworth, 222 S.W. 225, Comm. App. 1920.

†205 S.W. 2d 812—1947 Ct. of Civ. App.

of belief as to the proper form of treatment, however honestly entertained, are not necessarily a lawful excuse."

It would seem apparent from the decision in the case cited that an action could be instigated on the basis that a child is a dependent and neglected child and that the court could place the child in the custody of some person who could see to and would have the authority to make available the necessary medical care and treatment.

The other course of action which might be pursued in a situation such as this is for a petition to be filed with the court requesting that the court take temporary custody of the child and thereafter take the necessary steps to insure that the child received proper medical attention and, if necessary, restrain or enjoin the parent or parents from interfering with such actions of the court. This method has been used on several occasions, but to date I know of no case in Texas upon which there has been an appellate court decision further to substantiate the use of this method.

As can be seen from a reading of the portions quoted from the attorney general's opinion, a physician would be risking the possibility of civil liability if he either ignored the parents' request that no blood transfusions be given or if he proceeded to operate knowing that a blood transfusion may be necessary and that he will be unable to administer it. If a physician is confronted with a situation of this nature, he has the alternative of honoring the parents' request or of bringing the matter to the attention of the local county or district attorney with the request that appropriate legal steps be taken.

—PHILIP R. OVERTON, LL.B., Austin.

Vendors Medical Care Wins Approval of Voters

Constitutional amendment 8, referred to as the vendors medical care amendment, was passed by the voters of Texas at the general election November 4.

This amendment will permit the Legislature to establish and appropriate money for a medical care program for some 340,000 recipients of old age assistance, aid to the blind, aid to dependent children, and aid to the permanently and totally disabled. Funds for the program will be provided by the federal and state governments on a 3:2 matching basis. An estimated $9,000,000 will be paid out in medical payments by the state. These funds will be expended in payments to the vendors of medical goods and services, such as physicians, hospitals, pharmacists, and nursing homes.

The Association has adopted the philosophy that the primary responsibility for financing medical care rests with the individual and his family, and, if necessary, the community and county. The Council on Medical Jurisprudence of the Association recommended that if the amendment were adopted, vendor payments be provided through a program of voluntary health insurance coverage, rather than through contracts between the administrative agency and individual physicians, county societies, or the state Association.

Utilization of general hospitals has increased more sharply recently than use of mental and tuberculosis hospitals, according to Health Information Foundation. Even so, the country's psychiatric hospitals still account for more than half of all patient-days.

EDUCATION

University of Texas Medical Branch

A combined cardiac catheterization conference was conducted by Dr. Kenneth M. Smith, Cambridge University, in Cambridge, England, on "Electron Microscopy of Viruses" at the University of Texas Medical Branch, Galveston, on October 6.

In a microbiology seminar at the Medical Branch on October 6, Dr. Robert Leader, assistant professor of pathology at Washington State University, spoke on "Cytological Studies of Canine Hepatitis Virus."

Dr. A. Packchanian of the Medical Branch faculty presented two scientific papers at the International Congress of Microbiology in Sweden and at the International Congress of Tropical Medicine in Lisbon in September. He also visited in Russia, Germany, and France.

A $4,000 grant from the Eliza and Harris Kempner Fund has enabled a new course in environmental health to be established in the Department of Preventive Medicine and Public Health at the Medical Branch, according to Dr. Carl A. Nau, chairman of the department. Mrs. Mary N. MacKay has been appointed full-time instructor for the course.

Dr. Truman G. Blocker, Jr., professor of plastic and maxillofacial surgery at the Medical Branch, will be a section chairman in the program of the International Colloquium on Resistant Infections at New York, November 20-21.

Postgraduate Courses

Meningioma, El Paso, November 26.—A course on "X-Ray Signs of Meningioma" will be taught on November 26 by Capt. John Vosskuhler at the William Beaumont Army Hospital, El Paso, at 8 p.m.

Hydronephrosis, El Paso, November 29.—"Etiology and Management of Hydronephrosis" will be offered on November 29 at the William Beaumont Army Hospital in El Paso. Lt. Col. Robert E. Johnson will be the instructor.

Casualty Care, Fort Sam Houston, December 1-5.—A course on mass casualty care will be offered by the Army Medical Service School at the Brooke Army Medical Center from 7:30 a.m. to 4:30 p.m. daily.

Surgery of the Cornea, New York, December 1-5.—A full-time course on surgery of the cornea will be given by the New York University-Bellevue Medical Center Postgraduate Medical School. It is designed to offer thorough coverage of current concepts and practices in the field of corneal surgery. Tuition is $225. Additional information may be obtained by writing the office of the associate dean, New York University Post-Graduate Medical School, 550 First Avenue, New York 16, N. Y.

Obstetrics and Gynecology, Houston, December 2-16.—A practical refresher course on obstetrics and gynecology will be given by the University of Texas M. D. Anderson Hospital and Tumor Institute in Houston each Tuesday for 3 hours during the period December 2-16. Tuition fee is $20. For additional information, one may write the hospital, Texas Medical Center, Houston 25.

Urology, Temple, December 4.—"Principles of Urological Instrumentation" will be given by Dr. J. L. Shelton at the Scott and White Clinic in Temple from 7 to 8 p.m.

Eye, Houston, December 4-18.—A course on "Biomicroscopy of the Posterior Vitreous and Fundus" will be offered by the University of Texas M. D. Anderson Hos-

pital and Tumor Institute in Houston. Classes will be held December 4-18. Further information may be received by writing the hospital, Texas Medical Center, Houston 25.

Surgery, El Paso, December 7.—The El Paso Division of the University of Texas Postgraduate School of Medicine will present a course in surgery December 7 at the Turner Home, 1301 Montana Street, in El Paso.

Cardiovascular Surgery, Oklahoma City, December 10.—A course on the "Selection of Patients for Cardiovascular Surgery" will be given December 10 at the University of Oklahoma Medical Center at Oklahoma City. For further information and a final program, those interested may write Office of Postgraduate Education, University of Oklahoma Medical Center, 801 N. E. 13th Street, Oklahoma City.

Electrocardiology, Houston, December 15-19.—The M. D. Anderson Hospital and Tumor Institute in Houston will offer a course on Practical Electrocardiology, December 15-19, from 7 to 10 p. m. each evening. The course will emphasize special vector-electrocardiography. Dr. Robert P. Grant of the National Heart Institute, Bethesda, Md., will be the J. J. and Una Truitt lecturer for the course. There will be also daytime electrocardiographic interpretation practice sessions. Doctors may write the institute, Texas Medical Center, Houston 25 for additional information.

Cancer Fellowship Offered

Applications will be received until December 1 for the William and Lola Heuermann Cancer Research Fellowship at the University of Texas M. D. Anderson Hospital and Tumor Institute at Houston.

The annual stipend is $7,000, and graduates of class A medical schools who have completed an internship and at least 3 years of residency training in surgery are eligible to apply. Preference will be given to those applicants who have completed the minimum requirements for certification by the American Board of Surgery and who have done original research in any of the natural sciences.

Further information may be obtained through the Office of Education, University of Texas M. D. Anderson Hospital and Tumor Institute, Texas Medical Center, Houston 25.

Rehabilitation Traineeships Offered

Traineeships are now being offered for study at Boston University in the field of rehabilitation. Grants will provide $1,800 for the first year of full-time study leading to a master of education degree and $2,000 for the second year which leads to a certificate of advanced graduate specialization. Persons interested in applying for traineeship grants may apply to Dr. Julian S. Myers, Boston University School of Education, 332 Bay State Road, Boston 15.

University of Cincinnati to Give Industrial Health Fellowships

The University of Cincinnati's Institute of Industrial Health is offering graduate fellowships in industrial medicine. To be eligible, one must have completed at least 1 year of internship. The 3 year course of instruction leading to the degree of doctor of science in industrial medicine satisfies the requirements for certification in occupational medicine by the American Board of Preventive Medicine. Stipends for the first 2 years vary from $3,000 to $4,000 depending on marital status, and in the final year a fellow is compensated by the organization in which he is completing his training.

Further information may be received by writing to the secretary of the Institute of Industrial Health, College of Medicine, Eden and Bethesda Avenues, Cincinnati 19.

MEDICAL MEETINGS

Assembly Scheduled in San Antonio

Seventeen out-of-state guest speakers, presenting 14 different phases of medicine plus a variety of social events will be available for physicians and their wives attending the International Medical Assembly of Southwest Texas to be held January 26-28 in San Antonio.

Guest speakers and their subjects will be Dr. Frederic Crosby Bartter, Bethesda, Md., endocrinology; Col. Benjamin H. Sullivan, Jr., Washington, D. C., gastroenterology; Dr. Thomas L. Ball, New York, gynecology; Dr. E. Grey Dimond, Kansas City, Kan., internal medicine; Dr. Frank Foster, Boston, internal medicine; Dr. Milton L. McCall, New Orleans, obstetrics; and Dr. Merrill John Reeh, Portland, Ore., ophthalmology.

Also, Dr. Charles Morgan Norris, Philadelphia, otolaryngology; Dr. William Boyd, Toronto, Ontario, pathology; Dr. Margaret H. D. Smith, New York, pediatrics; Dr. Harry E. Bacon, Philadelphia, proctology; Dr. Franklin Gessford Ebaugh, Denver, psychiatry; Dr. John F. Holt, Ann Arbor, Mich., radiology; Dr. Charles G. Johnston, Detroit, surgery; Dr. Cornelius E. Sedgwick, Boston, surgery; Dr. William L. White, Pittsburgh, surgery; and Dr. Rubin H. Flocks, Iowa City, urology.

Also on the scientific program will be a one-day seminar on Sunday by the San Antonio Division of the Post Graduate School of Medicine of the University of Texas.

A brunch and style show, a friendship party, a golf tournament and cocktail buffet, and a buffet supper will be among the social activities.

Registration information may be obtained from International Medical Assembly of Southwest Texas, 202 W. French Place, San Antonio 12.

Cancer Conference To Be Held in Austin

The annual meeting of the Texas Division of the American Cancer Society will be held at the Driskill Hotel in Austin, December 4-5.

On the first day, a tumor clinic demonstration will be conducted by Dr. Robert Nixon of San Antonio, as well as a cytology program by Dr. John J. Andujar, Fort Worth, and Dr. Stewart A. Fish, Dallas. During the second day, group discussions will be conducted on the various areas of the Texas Division Cancer Control Program including campaign, service to cancer patients, public education, and tumor clinics under the direction of Dr. Kenneth W. Clark of the national office of the American Cancer Society and Dr. Irving M. Richman of Beaumont to be held for directors and secretaries of Tumor Clinics. Dr. Howard O. Smith of Marlin will speak on "Quackery."

A reception and dinner has been planned for December 4, after which Francis J. Wilcox of Wisconsin will speak on "Democracy in the American Cancer Society." Also, presentation of awards will be made at that time.

Cancer Seminar Set for January

Recent advances in the field of cancer, including such topics as "Treatment of Malignant Disease in the U.S.S.R." and "Chemotherapeutic Agents" will be presented at the seventh annual cancer seminar of the Arizona Division of the American Cancer Society. The seminar is planned for January 22-24 in Phoenix.

Speakers and the fields of medicine they represent will include Dr. Alfred Gellhorn, Columbia University, cancer research; Dr. Warren Bostick, University of California, pathology; Dr. Howard Hunt, University of Nebraska, radiology; Dr. Alexander Brunschwig, Cornell University Medical School, surgery; Dr. James W. Kernohan, Mayo Foundation, pathology; and Dr. Phillip Hodes, University of Pennsylvania, radiology.

Also, Dr. Edwin B. Boldrey, University of California, neurosurgery; Dr. L. H. Garland, Stanford University, radiology; Dr. Richard Overholt, Tufts College, surgery; and Dr. W. A. D. Anderson, University of Florida School of Medicine, pathology.

Additional information may be obtained from Dr. Edward H. Bregman, Chairman, Cancer Seminar Committee, American Cancer Society, 543 East McDowell Road, Phoenix.

Bahamas Conference Slated

Nassau will be the scene for three Bahamas medical conferences scheduled for the coming fall and winter.

Meetings to be held are the sixth Bahamas Medical Conference, November 28-December 18; the first Bahamas Surgical Conference, December 29-January 17; and the Serendipity Session, January 18-January 31. They will be held at the British Colonial Hotel where reduced rates may be received by participants and their families. Registration fee is $75. American citizens are not required to have passports.

Further details concerning the conferences may be obtained by writing Dr. B. L. Frank, Organizing Physician, 23 East 79th Street, New York 21; hotel accommodations may be made by writing Bahamas Conference, P. O. Box 4037, Fort Lauderdale, Fla.

Wichita County Society Holds Clinical Conference

The twelfth annual North Texas-Southern Oklahoma Fall Clinical Conference was held October 18 in Wichita Falls.

Speakers for the program were Dr. Henry L. Bockus, chairman of the Department of Internal Medicine at the University of Pennsylvania; Dr. Roger B. Scott, Department of Obstetrics and Gynecology at the University Hospitals of Cleveland, Cleveland, Ohio; Dr. C. Henry Kempe, professor and head of the Department of Pediatrics of the University of Colorado School of Medicine, Denver; and Dr. Denton A. Cooley, associate professor of surgery at Baylor University College of Medicine, Houston.

Dr. Richard L. Nelson, Wichita Falls, president of the Wichita County Medical Society, and Dr. J. B. Hathorn, Jr., Wichita Falls, chairman of the Fall Clinical Conference, presided. A cocktail hour and dinner dance were held in the evening.

Cancer Society Symposium to Be Held

The Oklahoma Division of the American Cancer Society will hold a symposium in Oklahoma City at the Skirvin Hotel on December 6 from 9 a. m. until 5 p. m. A panel discussion on "The Treatment of Lymphomas and Leukemias" will be presented.

Panelists will include Dr. William Dameshek, Boston; Dr. Leon Dmochowski, Houston; Dr. Leon O. Jacobson, Chicago; and Dr. Wayne Rundles, Durham, N. C. Further information may be obtained by writing Dr. Joe M. Parker, 1401 North Robinson, Oklahoma City 3.

Clinic-Hospital Group To Meet in Dallas

Problems related to private clinics and hospitals will be discussed at the annual meeting of the Private Clinics and Hospitals Association of Texas December 12-14 at Dallas.

A program on "Economics and Management" will be presented, including discussions on cost analyzing, cost controlling, account collecting, and medical insurance. Other topics to be discussed in relation to the private clinic group will be "The Partnership—Pitfalls and Safeguards," "'Association' or 'Corporation,'" "Personnel Administration in the Clinic," and "Public Relations—The Clinic in the Community."

Entertainment the night of December 13 will include a dinner dance and floor show.

Speech and Hearing Association to Meet

The American Speech and Hearing Association will hold its thirty-fourth annual convention November 17-19 in New York.

Featured on the program will be a symposium on "The Concept of Congenital Aphasia from the Standpoint of Dynamic Differential Diagnosis," proceedings of which will be published shortly after the convention. A cocktail hour and dance, as well as an all association luncheon, have been planned for those attending.

Members of the University of Texas faculty participating on the program include Mac Moseley, Lennart L. Kopra, and Jesse Villarreal.

Dermatology Meeting Set

The Academy of Dermatology and Syphilology will hold its annual meeting December 6-11 at Chicago. The meeting is restricted to members and guests, dermatologists in training. No fee will be charged for registration; however, fees will be established for several special courses.

A couple's chances of reaching a golden wedding anniversary have more than doubled since 1900, Health Information Foundation reports. About 150,000 couples now celebrate a golden anniversary each year, and another 750,000 have already had theirs.

The number of orphans in this country has dropped from 6,400,000 in 1920 to 2,700,000 in 1958, says Health Information Foundation. Yet the child population has risen from 39,000,000 to 60,000,000 in that time.

DRUG NOTES

Corticosteroid Series Grows; Musculoskeletal Aids Noted

Slight modification of the chemical structure of certain drugs may produce desirable changes in physiological activity. This basic hypothesis holds true for many familiar groups such as anesthetics, antihistamines, barbiturates, antispasmodics, and tranquilizers. Likewise an extremely small structural change may render a substance completely void of all therapeutic activity or in other instances give an effect exactly opposite to that of the parent compound.

No chemical entity is perfect or specific. Side effects or reactions always are present in greater or lesser degree. Specific and potent action with minimal side effects are traits to be desired. It is this need for better drugs that promotes investigation of compounds structurally related to those having near optimum activities.

The corticosteroids are not exceptions. Hundreds of synthetic compounds have been prepared and tested. Some have been of sufficient value to find their way into our armamentarium. The removal of hydrogen from cortisone and hydrocortisone to give prednisone and prednisolone respectively brought about a fourfold increase in anti-inflammatory activity when compared with the parent compounds. Prednisone and prednisolone also were better therapeutically because of lowered electrolyte activity.

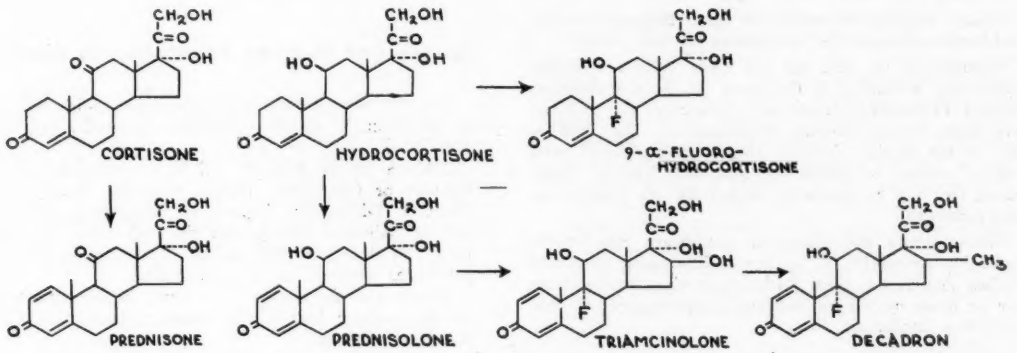

Fig. 1. Formulas for cortisone, hydrocortisone, 9-alpha-fluoro-hydrocortisone, prednisone, prednisolone, Triamcinolone, and Decadron.

The introduction of halogen into the steroid molecule was found to increase potency. An example is 9-alpha-fluoro-hydrocortisone marketed as Alflorone (Merck Sharp & Dohme), Cortef-F (Upjohn) or Florinef (Squibb). As an anti-arthritic, 9-alpha-fluoro-hydrocortisone is about 10 times as powerful as hydrocortisone, but since its electrolyte effects are so excessive, its systemic application is ruled out. However, it was found that the addition of a hydroxyl grouping at the 16-carbon position of the steroid nucleus eliminated this excessive electrolyte activity.

An example of this latter change is Triamcinolone (Aristocort — Lederle), (Kenacort — Parke Davis) (9-alpha-fluoro-16-alpha-hydroxy prednisolone). Triamcinolone is relatively free of salt and water retention yet has about the same antirheumatic potency as prednisolone.

More recently, methylation at the 16a-carbon position of this series produced a new set of compounds. One of the best of these is 16-alpha-methyl-9-alpha-fluoro-prednisolone (Decadron—Merck Sharp & Dohme). This change is said to have produced an increase in anti-inflammatory action accompanied by an absence of sodium retention.

DECADRON, dexamethasone (Merck Sharp & Dohme), which is not yet available and is still under clinical trial also is known as Hexadecadrol and MK-125.

Early clinical trials, while indicating a need for further investigation, point out that Decadron appears to have greater potency than any steroid yet produced. In a limited number of patients, one paper reports a 1 mg. dose every 6 hours to be effective in obtaining relief within 4 days from urticaria, asthma, and hay fever. Symptoms of rheumatoid arthritis were ameliorated within 24 hours. Pain, stiffness, and swelling were decreased and motility was increased. A dose of 1 mg. every 6 hours for 3 days in exfoliative dermatitis produces unbelievable results within 24 hours. Decadron appears to be about 7 times more potent that prednisolone.*

The Schering Company is working on this same series of compounds.

DARANIDE (Merck Sharp & Dohme) is a new carbonic anhydrase inhibitor containing dichlorphenamide 50 mg. per tablet and is indicated in the treatment of glaucoma.

Daranide (Dichlorphenamide) is 1, 3-disulfamyl-4, 5-dichlorobenzene and is slightly related to acetazolamide (Diamox—Lederle) which is 5-acetamido-1, 3, 4-thiadiazole-2-sulfonamide. Diuril (Merck Sharp & Dohme), 6-chloro-7-sulfamyl-1, 2, 4-benzothiadiazine-1, 1-dioxide, is also shown for comparison.

All three of the substances are carbonic anhydrase inhibitors and interfere with this enzyme, which is concerned with the conversion of carbon dioxide and water to carbonic acid and of carbonic acid to carbon dioxide and water. In the renal tubule, the inhibition of carbonic anhydrase results in a depression of tubular reabsorption of bicarbonate ion. This produces a loss of sodium bicarbonate and to a lesser extent potassium bicarbonate from the extracellular fluid, resulting in an increased flow and alkaline urine. An advantage of Daranide is its increase in chloride excretion which helps prevent metabolic acid-

Spies, T. D.; Stone, R. E.; and Niedermeier, W.: Note on Therapeutic Efficacy of 16-Alpha-Methyl-9-Alpha Fluoro Prednisolone (Decadron), South. M.J. 51:1066-1067 (Aug.) 1958. Bunim, J. J.; Block, R. L.; Lutwak, L.; Peterson, R. E.; and Whedon, G. D.: Studies on Dexamethasone, New Synthetic Steroid, in Rheumatoid Arthritis—Preliminary Report, Arth. & Rheum. J. 1:313-331 (Aug.) 1958.

osis. Daranide has been shown to maintain its essential activity over the course of weeks or months.

In lowering ocular tension the onset of action is within an hour with maximum effects in 2 to 4 hours and the duration of action 6 to 12 hours.

Daranide is suggested in both wide angle and narrow angle, chronic congestive, and secondary glaucoma. Daranide may be used alone but is most successful when used with miotics, such as pilocarpine, physostigmine, and Floropryl (Merck Sharp and Dohme).

The usual adult dosage range is from 25 to 50 mg. one to three or four times a day. The dosage must be adjusted carefully to meet the individual requirements of the patient. Side effects occur as with other carbonic anhydrase inhibitors, particularly with higher dosage ranges. These effects may include gastrointestinal disturbances, nervousness, lassitude, depression, confusion, dizziness, ataxia, tremor, tinnitus, paresthesias of the hands, feet, and tongue, pruritus, and others. If these effects do occur, reduction of dosage or temporary discontinuance of the drug is indicated. A close check on the electrolyte balance of the patient is also needed.

PARAFON and Parafon with prednisolone are two new formulations introduced by McNeil. Parafon is a pink tablet, containing chlorzoxazone 125 mg. and acetaminophen 300 mg., indicated in a wide range of musculoskeletal disorders and for the relief of muscle spasm and pain. The dose is 2 tablets three times daily.

Parafon with prednisolone is a buff colored tablet containing the same ingredients in the same proportions with the addition of 1 mg. of prednisolone per tablet. This addition permits its use to reduce inflammation as well as to relieve pain and muscle spasm. The dose is 2 tablets three times a day.

Parafon is Paraflex (McNeil) with Tylenol (McNeil). Acetaminophen is also known as N-acetyl-para-aminophenol, an analgesic and antipyretic. It is not a new agent. It is found in Apamide (Ames), Nebs (Norwich), Tylenol (McNeil), and Tempra (Mead). It also is found in combination such as in Trigesic (Squibb), Apromal (Ames), and Cylamide (Chicago Pharmacal). For a discussion of chlorzoxazone see Paraflex (McNeil), this journal, May, 1958, p. 319.

DIPRAL (Haskell) has been introduced as an antirheumatic. It contains dipyrone 62.5 mg.; salicylamide 192 mg.; para-aminobenzoic acid 192 mg.; ascorbic acid 20 mg., and cyanocobalamine 2.5 micrograms. This preparation is suggested for use in the treatment of arthritis, bursitis, neuralgia, lumbago, low back pain, and similar conditions. The dose is 1 or 2 tablets every 4 hours.

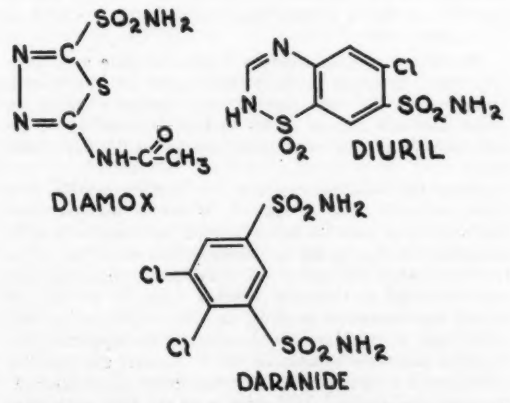

Fig. 2. Formulas for Diamox, Diuril, and Daranide.

The American Drug Index (1958) under the heading dipyrone lists the following as other names for the same compound: methampyrone, sodium phenyldimethylpyrazolonmethylaminomethanesulfonate, and novalgin. Trade names for dipyrone are Barone (Barre Drug Co.), Dimethone (Columbus), Diphrone (Myers-Carter), Methampyrone (Testagar), Narone (Ulmer), Nartate (G. F. Harvey), Novaldin (Winthrop), Pydirone (Breon), and Viperone (Vitamix Corp.).

Many readers will recognize Novaldin (Winthrop), which has been on the market for many years. It is listed in the first supplement of the Gutman Drug Encyclopedia (1934) as being available in this country. Fifteen or 20 years ago this drug enjoyed some popularity, but fell into disuse. Still listed in the Modern Drug Encyclopedia (ed. 6, 1955), Novaldin (Winthrop) carries the caution: "Granulocytopenia in susceptible individuals, repeated white cell counts should be made. Large or protracted doses should not be given. Not to be used at or near the menstrual period."

Recently a rash of dipyrone preparations and combinations has appeared. Thus after 15 to 20 years this old drug is being reintroduced onto the scene amid an aura heralding a drug new to this country.

—HERBERT SCHWARTZ, M.S., Austin.

OF GENERAL INTEREST

Personals

The American Medical Association's Council on Medical Education and Hospitals recently has appointed *Dr. M. Eleanor Blish* of Houston as a member of its field staff.

Dr. Eugene Alexander Hargrove, formerly of El Paso, has been appointed director of the North Carolina State Hospitals.

Dr. John A. Boston, Jr., director of the Austin Community Guidance Center, Austin, will work with the faculty of the University of Texas Graduate School of Social Work on curriculum revision and expansion, and will teach a course in psychopathology.

Dr. Louis W. Breck of El Paso was elected president of the New Mexico Chapter of the Western Orthopedic Association at its annual meeting recently in Albuquerque.

Dr. H. D. Garrett of El Paso was a guest speaker at the El Paso County Pharmaceutical Association's annual banquet on October 11 in El Paso. The event was in observance of Pharmacy Week in El Paso.

Dr. J. R. Maxfield of Dallas has participated in various activities recently. Among these are an official conference on the future planning for the total body irradiation program of the Oak Ridge Institute of Nuclear Studies, the Naval Medical Symposium on Scanning, and the program of the Forrest County Dental Society. He also represented the Regional Advisory Council on Nuclear Energy of the Southern Governors' Conference in Lexington calling on six southern governors in regard to nuclear energy matters to come up before the Southern Governors' Conference.

Dr. Hervey W. Dietrich, El Paso, was guest speaker recently at the graduation ceremonies at Fort Bliss for Reservist and National Guardsmen completing 6 months of active duty at the Army's Air Defense Training Center.

Dr. E. T. Wolf, Houston, recently attended three medical meetings pertaining to endocrinology at George Washington University, Washington, D. C.; Syracuse University,

Syracuse, New York; and New York University Bellevue Medical Center, New York.

Dr. C. M. Phillips, Levelland, was elected president of the University of Texas Dads' Association at Dads' Day, November 1, in Austin. *Dr. J. B. Heath* of Madisonville was named one of the vice-presidents.

Dr. Leonides G. Cigarroa of Laredo was named a member of the Laredo School Board recently.

Dr. Henry A. Holle, Austin, was elected president of the Conference of State and Provisional Health Authorities of North America on October 27 and of the American Association of Public Health Physicians on October 29.

Dr. Thomas L. Royce of Houston was named recently as a regional member of the Southwest territory to the medical advisory board of the Sears and Roebuck Foundation.

Three El Paso doctors are among the officers of the Southwestern Medical Association which were elected at the association's October meeting in Tucson, Ariz. They are *Dr. R. L. Deter,* president-elect; *Dr. M. D. Thomas,* secretary-treasurer; and *Dr. Louis Breck,* Executive Committee member.

Dr. Mervin H. Grossman, Dallas, participated in a symposium on "The Why in Medicine and Medical Schools," at the American Medicine's "Festival of Faith," held October 2 at Tyronza, Ark., under the auspices of the First Councillor District of the Arkansas Medical Society.

At the California Academy of General Practice scientific assembly, October 5-8, *Dr. William H. Gordon* of Lubbock spoke on "Is It Angina?"

Dr. Frank O. McGehee, Houston, presided at one of the clinical sessions of the annual meeting of the Clinical Orthopaedic Society which was held October 2-4 in Denver and Colorado Springs.

Dr. Howard O. Smith of Marlin, President of the Texas Medical Association, made the dedicatory address, September 26, for the new hospital, administration, and dormitory buildings at Mexia State School, Mexia.

Dr. Oscar L. Morphis of Fort Worth was a speaker at the October 9-11 meeting of the Academy of Psychosomatic Medicine in New York. Speakers from all over the United States participated in talks, luncheon panels, and symposiums during the meeting.

Dr. James Edward Coyle, Jr., and his wife are the parents of a son, born October 23 in Fort Worth. *Dr. and Mrs. E. W. Coyle* of San Antonio are the grandparents.

Flu and Polio Vaccines Needed During Pregnancy

The advantages of vaccinating pregnant women against influenza, particularly the Asian flu strain, and against poliomyelitis have been pointed out by the Public Health Service and by five researchers from the University of Minnesota.

Dr. Leroy E. Burney, Surgeon General of the Health Service, advocates the influenza vaccine stating that ample supplies of serum of the polyvalent type, which contains immunizing material designed to block all important strains of influenza, are now on hand.

Minnesota researchers, whose study of 138 pregnant women appears in the September 6 issue of the *Journal of the American Medical Association,* conclude that polio vaccination during pregnancy is important because it combats the "extraordinary susceptibility" of pregnant women to the disease and because it prolongs their infants' passive immunity.

Physician's Aid Needed In Disability Program

Doctors, hospitals, institutions, and agencies who have contact with disabled people are frequently asked these days to fill out medical reports in connection with claims under the disability provisions of the social security law. The Vocational Rehabilitation Division of the Texas Education Agency has provided the following information to help Texas physicians understand their role in relation to this law.

The provisions protect severely disabled people in three ways:

1. Benefits are provided for insured workers age 50 to 65 who are no longer able to work because of an extended total disability. Beginning September, 1958, benefits also may be paid to certain of the disabled workers' dependents —namely, wives and dependent husbands who have reached retirement age, unmarried dependent children (including sons or daughters disabled in childhood), and wives, regardless of age, who have in their care children entitled to benefits.

2. Benefits can be paid to adult disabled sons and daughters of retired workers and of workers who have died. To be eligible for these benefits, the disabled son or daughter must have a disability which began before age 18 and has continued uninterruptedly.

3. Disabled workers, regardless of age, can "freeze" their social security records to protect their own and their families' future benefit rights.

To qualify under these disability provisions, a person must be unable to engage in any substantial gainful activity by reason of a medically determinable physical or mental impairment which can be expected to result in death or to be of long continued and indefinite duration. A disabled worker, in addition, must have social security credits for work in at least 5 out of the 10 years before he became disabled and must be fully insured. The social security credits needed for a fully insured status vary from person to person depending on age. Five years of work under social security will be enough to meet the "fully insured" requirement through 1960. Anyone with 10 years of social security credits is fully insured for life.

Benefits are not payable for the first 6 months that a person is disabled. However, as in the case of the old age insurance benefits, the law protects a person who delays filing his application for some time after he meets the requirements for payment (including the 6 month waiting period), in that it permits back payments for as much as 12 months.

Workers with long standing disabilities have until June 30, 1961, to apply to have their social security records frozen as of the time they actually became disabled. In some cases this may be as far back as October, 1941, the first date when the work requirements could have been met.

Under the social security law the benefits payable to a child ordinarily stop at age 18. Where a disabled child was entitled to benefits before age 18, his benefits will be continued as long as he is disabled. Otherwise, his benefits begin when the parent on whom he is dependent becomes entitled to disability benefits (age 50 to 65) or to old age insurance benefits, or dies, regardless of the child's age at that time. In contrast to the applicant for disability insurance benefits or for a "freeze," the disabled child does not need a record of work under social security. However, the disabled child must meet the same definition of disability as disabled workers. The mother of the person

receiving this type of benefit may qualify for mother's benefits if she has the disabled son or daughter in her care.

Procedure Followed

All applicants, whether for benefits or for the freeze, are referred to their state vocational rehabilitation services. Payments to the disabled worker and his eligible dependents are suspended, if the disabled worker refuses, without good cause, to accept available rehabilitation services. On the other hand, if the disabled worker accepts the rehabilitation services and performs work pursuant to an approved state vocational rehabilitation program, benefits may continue for as much as 12 months after he starts that work.

Applications under the social security disability provisions are taken by the 29 social security district offices, located in communities throughout Texas. The social security district office gives the disabled applicant information about his rights, helps him to fill out his application, and advises as to the proofs and documents he may need to support that application. Under the law, the disabled person is responsible for furnishing, at his own expense, the evidence to show that he is "disabled" within the meaning of the social security law.

His social security district office gives him one or more copies of a medical report form on which this evidence can be supplied. He is asked to take or mail this form to his attending physician or to a hospital, institution, or public or private agency where he has been treated for his disabling condition. This report form, designed as a guide for the reporting physician, lists the kind of medical facts essential for the determination of "disability." However, the reporting doctor is not required to use it; if he prefers, he may make his report in the form of a narrative summary or he may submit photocopies of the pertinent medical records. The completed reports are to be returned by mail to the social security district office.

By providing a full and objective clinical picture of his patient, the reporting doctor fulfills his responsibility to his patient and, incidentally, expedites the decision. To be of maximum use for the evaluation of a patient's capacity for work, the report should include a history of the impairment, the symptomatology, clinical findings, and diagnosis. It should be noted that the attending physician is asked to provide only objective medical information. He is not put in the position of having to decide the issue of "disability." The determination as to whether a patient is "disabled" must be made within the scope of the social security law; often it is based on evidence from more than one medical source. Also the determination must take into account factors which are not purely medical—factors such as education, training, and work experience.

After the applicant has filed his claim under the disability provisions, and furnished the supporting evidence, his case is forwarded by his social security district office to the Vocational Rehabilitation Division of the Texas Education Agency. Under agreement between the Texas Education Agency and the federal government, the Vocational Rehabilitation Division makes the disability determinations for residents of Texas.

The evaluation of disability is made by a "review team" in the Vocational Rehabilitation Division. A team of at least two professional people concur on each determination. One of the two is a doctor of medicine; the other is trained in evaluating the personal and vocational aspects of disability. The team must decide whether the applicant is sufficiently disabled to prevent him from engaging in any substantial gainful activity within the foreseeable future.

In many cases it is necessary to write back to the reporting physician because the medical report does not contain enough clinical facts. As a rule, the kinds of medical facts that the attending physician needs in making his diagnosis and in treating his patient are the same as those required to evaluate the severity of impairments in disability programs. However, certain medical facts are more highly significant in disability evaluation than to medical management of the case. To evaluate the effect of the impairment on the individual's ability to work requires the kind of medical evidence that confirms the diagnosis and measures remaining functional capacities of mind and body. By furnishing complete and objective evidence, the reporting physician makes it unnecessary for the reviewing physician to "write back" for additional clinical or laboratory data.

Where the medical evidence initially submitted indicates a reasonable likelihood that the applicant is disabled, but more precise clinical or laboratory findings are needed to arrive at a sound decision, or to resolve conflicts in the evidence, a consultative examination (usually at the specialist level) may be authorized to obtain additional information.

Some doctors feel that they should be reimbursed by the government for the cost of preparing the medical reports on their patients, and it is, of course, within their prerogative to charge the patient a fee for that service. However, under the law, the Social Security Administration cannot pay that fee; that is the individual's responsibility.

Other doctors are perturbed when asked to complete medical reports for patients whom they may not have seen for years. In these cases, however, the physician is not expected to describe the present condition of the patient, but his medical condition as of the time he made his last examination.

Evaluation of Disability

The central purpose of disability evaluation is to determine remaining mental and physical capacities, to determine (1) what the claimant has left and (2) what he can do with what he has left.

A realistic evaluation of disability must be based on clinical and laboratory tests of the individual's ability to meet the metabolic demands of activity, to reason, to perceive, and to perform certain basic activities such as sitting, standing, bending, and walking. When incapacity results from severe impairment of one or more such functions, it is essential to establish not only the fact that functional impairment exists, but also its extent.

A brief discussion of disability from heart disease may serve to illustrate the kind of evidence needed to measure the patient's remaining functional capacity, after appropriate therapy. Most frequently, impairments of the circulatory system produce loss of bodily function by reduction of cardiac reserve, or interference with peripheral vascular circulation. As a result the circulatory apparatus cannot meet effectively the metabolic demands placed upon it. The diagnosis of the condition usually reflects whether the impairment is caused by valvular disease, myocardial damage, or vascular pathology.

Cardiac size by roentgen ray or physical and electrocardiographic findings furnish objective proof of cardiac pathology. The amount of dyspnea or angina described in terms of the number of steps that can be mounted or distance in feet or blocks that the patient can walk is highly significant to evaluation of the degree of loss of function. The presence or absence of cardiac edema and response to therapy are also indicative of severity of cardiovascular impairments. The status of the pulse in the peripheral vessels may provide gross clinical evidence of impaired circulation of the extremities.

Impairments of the cardiovascular system may manifest themselves with dramatic suddenness, for example, myocardial infarction, obstruction of vessels in peripheral or central nervous system circulation, lungs, and other visceral organs. The initial clinical manifestations are severe and the prognosis dubious. With survival from the acute stage, and appropriate therapy, substantial improvement can be expected over a period of time. A realistic evaluation of remaining function should be made after the convalescent period. Hence, the clinical and laboratory findings after maximum improvement from treatment are particularly valuable in making a determination of remaining cardiac, brain, or other function. (Note that a "waiting period" is prescribed by law, that is, the first monthly disability insurance benefit cannot be paid until the seventh month after the onset of the disability.) A description of the acute attack helps confirm the diagnosis and therefore should be included in the report.

Loss of function is evaluated on the basis of clinical and laboratory findings after maximum benefit from treatment. Clinical information concerning nature and response to treatment furnished information on stability of functional capacity; for example, a history of periodic decompensated heart disease, in spite of treatment, would indicate a comparatively severe condition.

More complicated tests of vascular function may be required in certain cases, for instance, arteriography. The reporting physician should not be concerned because he may not have equipment to perform these tests. A carefully performed exercise tolerance test (if not medically contraindicated) almost always will provide the clinical evidence needed to evaluate the degree of remaining function.

Further Guidance

In developing evaluation guides for the use of state agencies and its own technical and professional personnel, the Social Security Administration has had the continuing cooperation of a medical advisory committee composed of recognized specialists associated with medical and allied professions in various fields outside government, such as general practice, research, medical education, industry, and labor.

The American Medical Association has taken steps to inform its members about the medical aspects of the disability program, especially the preparation of medical reports. On June 1, 1957, the *Journal of the American Medical Association* carried a comprehensive report on the administration and organization of the disability provisions. Regulations on the meaning of disability appeared in the September 28, 1957, issue.

Grant Enables Nurse-Patient Study

How nurses' conflicts affect patient care in the outpatient department will be studied by a Boston University professor under a $29,710 grant from the Department of Health, Education and Welfare, Public Health Service, National Institutes of Health.

Among the factors which will be studied under the new grant are the discrepancies in expectations among members of the medical care team in the outpatient department; the relationship between the nurse and her supervisor; the differences in what the nurse expects from her job and what the job objectively requires; and an analysis of the competition between the two demands made of a nurse; patient care and organizational demands.

Medical Research Foundation Assists Texas Institutions

Twenty-three private investigations in medical research are being carried forward with whole or partial support from the Medical Research Foundation of Texas, points out Dr. Denton Kerr of Houston in an October report to foundation directors and members.

One or more of these studies, says Dr. Kerr, may develop into constructive achievement in combatting the ills of mankind. Among the institutions that are now participating in grants are Baylor University College of Medicine, Houston; Baylor University College of Dentistry, Dallas; University of Texas Southwestern Medical School, Dallas; and University of Texas Medical Branch, Galveston.

To insure the continuance of these studies and to sponsor additional research projects, Dr. Kerr adds, the foundation needs a sharply emphasized measure of support in the form of grants and in the number of individuals and corporations whose support is vital to the foundation's existence.

Formed in August, 1955, by physicians, dentists, educators, business men, and other Texas leaders, the foundation's main purpose is to assist and support medical research throughout the state. Through its grants committee, which is under the direction of Dr. Carl A. Nau of Galveston, the foundation allocates the gifts which are made to it to different Texas medical, dental, and other health institutions.

Directors of the foundation point out that between the years of 1944 and 1952, medical research reduced the death rate from all causes by 9.4 per cent. During the same period, research added 5 years to the life expectancy of the average individual, saving 845,014 American lives in doing so. These people earned and added $1,488,000,000 to the national income in 1952 alone. Research also has saved American taxpayers untold millions of dollars by the discovery of drugs which have sharply reduced the admission of patients to state hospitals.

Foundation leaders also add that at present, more than 40 per cent of the research grants to Texas institutions come from federal sources. This high percentage of federal support, they state, lays the groundwork for possible government interference with the medical profession and our free enterprise system.

Contributions to the foundation are deductible for federal income tax purposes and may be sent to the Medical Research Foundation of Texas, Inc., 616 Melrose Building, Houston 2.

Vagisec Curbs Trichomoniasis

A new drug preparation called Vagisec has been used successfully by two New York physicians in the treatment of trichomoniasis.

In an article in the September, 1958, issue of the *American Journal of Obstetrics and Gynecology*, Dr. Stephen William Giorlando and Dr. Murray Lampel Brandt of Fordham Hospital, New York, reported that 93 per cent of 58 patients tested produced negative cultures in 3 consecutive months after completion of therapy.

Vagisec contains a chelating agent which removes the calcium of the calcium proteinate in the trichomonad's cell membrane, a wetting agent which lowers the surface tension and removes the lipids, and a detergent which denatures the protein.

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Palvite will produce Vitamin B-12 serum levels superior to those obtained with injections of 100 mcg. B-12. Increased use of oral B-12 therapy was seen as a possible result of studies reported at the third Vitamin B-12 symposium, held in New York City recently. Investigators told of increased absorption of the orally administered vitamin in the presence of intrinsic factor if it was given in a vehicle containing sorbitol. Palvite utilizes sorbitol as the vehicle.

Each Teaspoonful Contains

Vitamin A	5000 Units
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...in Skin Diseases: In a study of 26 patients with severe dermatoses, ARISTOCORT was proved to have potent anti-inflammatory and antipruritic properties, even at a dosage only ⅔ that of prednisone[1]... Striking affinity for skin and tremendous potency in controlling skin disease, including 50 cases of psoriasis, of which over 60% were reported as *markedly improved*[2]...absence of serious side effects specifically noted.[1,2,3]

...in Rheumatoid Arthritis: Impressive therapeutic effect in most cases of a group of 89 patients[4]... 6 mg. of ARISTOCORT corresponded in effect to 10 mg. of prednisone daily (in addition, gastric ulcer which developed during prednisone therapy in 2 cases disappeared during ARISTOCORT therapy).[5]

1. Rein, C. R., Fleischmajer, R., and Rosenthal, A. L.: J. A. M. A. *165*:1821, (Dec 7) 1957.
2. Shelley, W. B., and Pillsbury, D. M.: Personal Communication.
3. Sherwood, A., and Cooke, R. A.: Personal Communication.
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12. Cooke, R. A.: Personal Communication.
13. Dubois, E. L.: Personal Communication.

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...in Respiratory Allergies: "Good to excellent" results in 29 of 30 patients with chronic intractable bronchial asthma at an average daily dosage of only 7 mg.[6]... Average dosage of 6 mg. daily to control asthma and 2 to 6 mg. to control allergic rhinitis in a group of 42 patients, with an actual reduction of blood pressure in 12 of these.[7]

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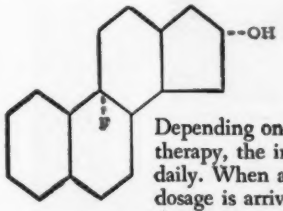

Depending on the acuteness and severity of the disease under therapy, the initial dosage of ARISTOCORT is usually from 8 to 20 mg. daily. When acute manifestations have subsided, maintenance dosage is arrived at gradually, usually by reducing the total daily dosage 2 mg. every 3 days until the smallest dosage has been reached which will suppress symptoms.

Comparative studies of patients changed to ARISTOCORT from prednisone indicate a dosage of ARISTOCORT lower by about ⅓ in rheumatoid arthritis, by ⅓ in allergic rhinitis and bronchial asthma, and by ⅓ to ½ in inflammatory and allergic skin diseases. With ARISTOCORT, no precautions are necessary in regard to dietary restriction of sodium or supplementation with potassium.

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Geraldine Skinner, B.S., O.T.R., Director of Occupational Therapy
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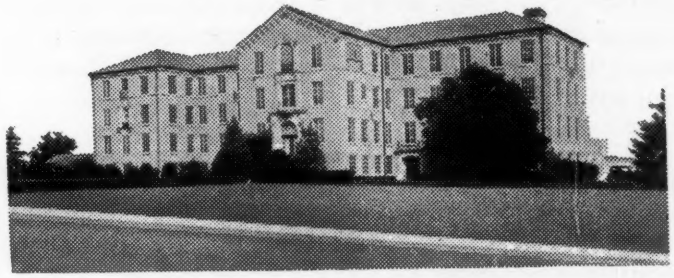

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Happy Birthday, a Hundred Times

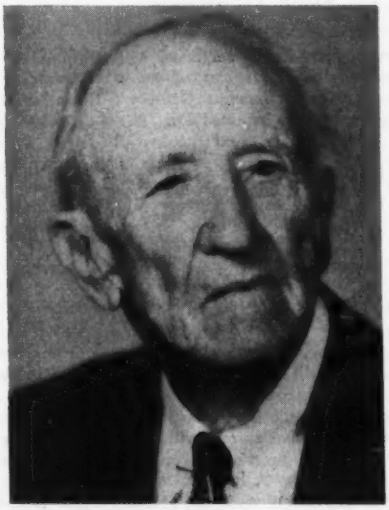
A commemorative scroll from Tarrant County Medical Society, a cake at the Southern Medical Association meeting in New Orleans, a party at his old home in Cookeville, Tenn., and the good wishes of his many patients, colleagues, and friends marked the one hundredth birthday of Dr. John B. Cummins of Fort Worth. The oldest practicing physician in the United States, according to American Medical Association records, celebrated his anniversary November 7.

Still alert, active, and enthusiastic in his practice and as an attendant at medical meetings, Dr. Cummins has been a physician for 60 years, about 50 of them in Fort Worth. He was born November 7, 1858, in Jackson County, Tenn., was graduated in medicine from the University of Nashville in 1897, and practiced for 6 years in Navarro County and 5 years in northern Louisiana before moving to Fort Worth. There he was a lecturer in obstetrics for several years at old Fort Worth University School of Medicine.

Dr. Cummins for many years has been a member of the Tarrant County Medical Society, Texas Medical Association, American Medical Association, and Southern Medical Association. He belongs to the Texas Academy of General Practice and the Fifty Year Club for Texas physicians in practice 50 years or longer. He was named General Practitioner of the Year of Tarrant County in 1950, was elected to honorary membership in the Texas Medical Association in 1953, and was made an honorary member of the Methodist Association and Harris Hospital in Fort Worth in 1956.

In 1899 Dr. Cummins married Miss Tillie Corner of Smithfield, Tenn. She died in 1917 without the couple having children.

A slight figure, bent, with sparse white hair, Dr. Cummins is proud that he uses "no wig, no eye glasses, no hearing aid, no walking stick, and no artificial teeth." Until recent years he drove his own model T, but now he depends on other means of transportation. His recent journey to New Orleans began by train, but he enjoyed his first plane ride from New Orleans to Tennessee.



Dr. John B. Cummins of Fort Worth, oldest practicing physician in the United States, celebrated his hundredth birthday this month.

Maternal Death Rate Halved Since 1946

The proportion of women dying in childbirth has been reduced by more than half since 1946, according to an article in the September 20 issue of the *Journal of the American Medical Association*, written by Dr. Milton D. Klein and Dr. Jacob Clahr of New York.

According to the United States National Office of Vital Statistics, the number of deaths per 10,000 live births has decreased from 11.6 in 1946 to 4 in 1956. Although infection accounted for only 10.2 per cent of all maternal deaths, it showed the greatest reduction as a cause of maternal death. Blood transfusions have proved to help reduce the number of deaths from infection. Other factors contributing to the decrease include education of the public concerning the importance of early prenatal care and good medical care, improved hospital facilities, and more rigid hospital rules and regulations pertaining to obstetrical practice.

"Take the Test—Be Assured"

Diabetes is listed as seventh in the causes of death by disease. Furthermore, it is estimated that there are more than 2,000,000 diabetics in the United States, and that almost half of them are unaware that they have the ailment. Approximately 4,750,000 other persons living today are potential diabetics and about 65,000 persons become diabetic each year.

In an effort to control this widespread disease, the American Diabetes Association sponsors an annual detection drive, which receives its emphasis during Diabetes Week, November 16-22. The drive is carried out locally by the association's 42 affiliate units and by more than 2,200 doctors who are members of it, in cooperation with more than 900 county and state medical societies. During this time, detection tests are provided in hundreds of local communities and efforts are doubled in educating the American public on the symptoms and the importance of early detection and control of the condition.

Having "Take the test—and be assured" as its theme, the 1958 Diabetes Detection Drive stresses that there is no reason for anyone to fear the results of the simple test for diabetes. Once diabetes is discovered, the physician today not only can combat the disease with insulin, which is still the backbone of management when diet fails to control diabetes, but also many patients are being treated successfully with drugs that have the advantage of being tolerated by mouth. Control by the method best suited to the individual case means that persons with diabetes can lead normal lives, Diabetes Association officials point out.

65 Doesn't Mean Retirement

Large numbers of people throughout the United States continue in gainful employment beyond age 65, report statisticians of the Metropolitan Life Insurance Company.

Estimates of the Bureau of Census show that in March of last year more than half of the male population between 65 and 69 was still in the labor force. At ages 70-74, the proportion was practically two-fifths, but at ages 75 and over it was only one-sixth. The tendency to work beyond age 65 is greater among farm workers than among those in nonagricultural industries, the report shows.

Texans Report on Strokes In October AMA Journal

A large percentage of strokes are caused by obstructions in the arteries of the neck, report Dr. E. Stanley Crawford, Dr. Michael E. DeBakey, and Dr. William S. Fields in the October 4 issue of the *Journal of the American Medical Association.*

The three physicians, associated with the Baylor University College of Medicine and the Methodist Hospital, Houston, point out that the obstructions, frequently resulting from hardening of the arteries, reduce the flow of blood to the brain, producing the symptoms of stroke—weakness, loss of speech and the ability to understand, visual disturbances, and mental dullness.

Since the obstructions lie in the neck, they can be treated by "direct surgical attack," the authors conclude. The surgery may take the form of actual removal of the obstructed part of the artery or the creation of a grafted by-pass around the occlusion.

Physicians Neglect Themselves While Taking Care of Others

The average physician is so busy taking care of others that he does not have time to take care of himself, according to the October, 1958, issue of *Patterns of Disease,* prepared by Parke, Davis & Company, which reports a survey conducted among more than 9,000 practicing physicians under 65 years of age engaged in private practice in the United States.

The physician undertakes a far heavier work load than the average person, the survey indicates. Half the physicians in this study reported a work week of 50 hours or longer; 13 per cent, 60 to 64 hours; and 6 per cent, 80 hours or more. Close to 60 per cent of the physicians in the study stated they spend less than 10 hours a week on recreation. Of the 37 per cent who mentioned hobbies, half stated that they spent only 4 hours a week or even less on their hobby.

Despite his crowded working schedule, the physician loses less time from work due to illness than the average man, according to the survey. Two-thirds of the doctors in the study reported no time lost from work last year. The remaining third reported an average time of 3.8 days lost due to illness as against 7.4 days of work loss by the average working man.

Award for Research in Psoriasis

An International Memorial Award for Psoriasis Research has been announced by the Department of Dermatology at Baylor University College of Medicine, Houston. The $1,000 award, established as a 10 year program by Carol and Henry J. N. Taub in honor of their grandparents, is designated for the individual or group who has done the most outstanding investigative work in this field.

Results of the research must have been presented before a dermatological medical society or published in a recognized medical journal. The name of any applicant, together with supporting data, should be submitted for consideration by December 1. Communications should be addressed to Dr. Johnson M. Knox, Department of Dermatology, Baylor University College of Medicine, Houston 25.

Insurance Statisticians Report Flu Epidemic Not Likely in 1958

Although accurate forecasting of epidemic outbreaks of influenza is impossible, statisticians of the Metropolitan Life Insurance Company point out that even if the disease is prevalent in some measure every year, it is exceptional for widespread outbreaks to occur in successive years.

The statisticians, who have been charting the course of last year's epidemic through policyholder experience, report that the 1957 outbreak was much more explosive and reached an earlier peak in the northern part of the United States than in the South or West. The number of deaths ascribed to influenza rose rapidly during October, reached a peak about the fourth week of the month which was maintained through mid-November, and then dropped off sharply. Mortality rose again in January and remained at a plateau through early spring.

Deaths largely were concentrated among the very young and the aged. A large proportion of deaths attributed to influenza occurred among people who had pre-existing chronic disorders. Especially vulnerable were middle aged and old people with chronic heart disease.

Scholarships on Neuromuscular Diseases

Postdoctoral scholarships to promote work in the field of neuromuscular diseases will be provided again by the Sister Elizabeth Kenny Foundation. These scholarships are designed for scientists at or near the end of their fellowship training in either basic or clinical fields.

The scholars, to be appointed annually, will receive a stipend for a 5 year period at the rate of $5,000 to $7,000 a year depending upon qualifications. Candidates from medical schools in the United States and Canada are eligible. Those desiring information may write Dr. E. J. Huenekens, Medical Director, Sister Elizabeth Kenny Foundation, Inc., 2400 Foshay Tower, Minneapolis 2.

Surgeons Elect 11 Texans

Approximately 1,100 surgeons, 11 of whom were Texans, were elected as fellows of the American College of Surgeons during its meeting October 6-10 in Chicago.

Those recognized included Drs. Rex L. Rook, Amarillo; Wiley J. Jinkins, Jr., and Stephen R. Lewis, Galveston; Cecil A. Robinson, Kermit; James N. Adams, Longview; Charles E. Ratcliff, Lubbock; George E. Rabinowitz, McAllen; Roy R. Roberts, Plainview; and Kenneth C. Bebb, Robert E. Higgs, and James A. Scofield, Jr., Wichita Falls.

Doctors Vie for All-American Award

Twelve physicians, one a native Texan, are among the 72 senior football lettermen of the class of 1934 honored by their alma maters with nomination for the 1958 Silver Anniversary All-American award sponsored by *Sports Illustrated.* Twenty-five awards will be given, honoring those players who have most distinguished themselves in their chosen fields of life. A breakdown of the list of nominees shows that physicians were the second largest professional group represented.

On the list of nominees is Dr. Wilford L. Cooper of Lexington, Ky., a former resident of Dallas.

Use Made of Doctors Doubles in 30 Years

Americans now see physicians almost twice as often, on the average, as they did 30 years ago, reports Health Information Foundation in its monthly statistical bulletin, *Progress in Health Services.*

Three decades ago, the foundation reports, Americans made an average of 2.6 visits a year to physicians. The current average is almost 5 visits a year. Part of the increase can be explained by the fact that a higher proportion of people now see their doctor at least once a year. Currently only about one person in three fails to do so. Less than half the population in the 1928-1931 period saw a physician during the course of a year.

Women tend to see physicians more often than men do, especially during the young adult period, according to the Foundation. The lowest average use comes from persons 5 to 14 years of age; the highest, 65 years of age and over.

Grant Enables Drug Research

Gunnar Gjerstad, Ph.D., University of Texas College of Pharmacy specialist in the science of medicinal drugs, has received a $2,300 grant from the United States Public Health Service to investigate the effect of gibberellic acid, a powerful plant growth booster, on certain drug plants.

The acid makes plants grow to phenomenal sizes, and Dr. Gjerstad will analyze what happens to the active medicinal ingredient as the plant grows larger than usual. His results may lead to reduction of the high costs of certain medicines produced from plant extracts.

Accidents Are Leading Death Cause

Accidents, not illness, are the leading cause of death among Americans from 1 to 36 years of age, reports an issue of "Patterns of Disease," prepared by Parke, Davis, and Company for the medical profession. Accidents also play an important role in the mortality of the aged, as illustrated by the fact that aging persons account for one out of every four accidental deaths.

Evidence presented in the publication indicates that men are more "accident-prone" than women, and chances at birth that a man will lose his life in an accident before reaching the age of 65 are 4 in 100. This figure is more than twice the chance of death from pneumonia, influenza, tuberculosis, and diabetes combined.

Motor vehicles head the list of fatal accidents, with home accidents second and accidents at work third. The general practitioner sees more than 60 per cent of all accident patients, although they account for only about 10 per cent of his time as compared to more than 40 per cent of the orthopedists's time. Accidents cost the nation $11,200,000,000 annually.

Maximum concentration of older people is in the New England states, the Great Plains states, and Florida, disclosed a booklet of the Parke, Davis & Company, *Patterns of Disease.*

Medical Communications Institute Formed

An Institute for Advancement of Medical Communication, a nonprofit organization, has been established to develop ways of increasing the efficiency of information exchange among medical scientists, medical educators, and practicing physicians, the July 18 issue of *Science* reports. The institute expects to devise and test new methods of disseminating medical information and to serve as an information center for medical organizations that request help with communication problems.

Chauncey D. Leake, Ph.D., professor of pharmacology and assistant dean of the College of Medicine, Ohio State University, formerly of the University of Texas Medical Branch, Galveston, is a charter member of the board of directors.

Essay Award on Rehabilitation

The Bernard M. Baruch Essay Award is being sponsored by the American Congress of Physical Medicine and Rehabilitation for an essay on any subject relating to physical medicine and rehabilitation. Only medical students are eligible to submit manuscripts for the $100 annual award; March 2 is the deadline. Further information may be obtained by writing to the congress at 30 North Michigan Avenue, Chicago 2.

Manual Available On Use of Radioisotopes

A manual entitled "Manual on Use of Radioisotopes in Hospitals" has been prepared by the American Hospital Association for use in setting up a radioisotope program or for reviewing current procedures for handling radioisotopes.

Included in this 44 page manual are chapters on the following subjects: radioactive isotopes, their characteristics and medical uses; regulations and procedures; organization and control; facilities and equipment; radiation protection for high energy equipment; administrative, legal, and public relations aspects; and radiation protection education for hospital personnel.

For a copy of the publication, those interested may write the American Hospital Association, 18 East Division Street, Chicago 10. Cost of the manual is $1.

House Plant Causes Dermatitis

Some species of the house plant philodendron have been found to cause a skin eruption similar to that produced by poison oak, report two Los Angeles doctors in the September issue of *Archives of Dermatology.*

Contact with philodendron leaves produces red blotches and streaks of tiny blisters. The number of cases of dermatitis resulting from contact with philodendron is probably greater than generally thought, Drs. Samuel Ayres, Jr., and Samuel Ayres, III, say, especially since philodendrons are increasing in popularity as house plants. The skin eruptions generally clear after the exposure to the plants is ended.

Medical Advances Affect Patient Use of Hospitals

Medical advances not only influence the community's total hospital bill but also affect the community's utilization of hospitals, said Ray E. Brown, superintendent, University of Chicago Clinics, in an article published October 1 in *Hospitals*, journal of the American Hospital Association.

"In the first place, these medical advances now permit doctors to offer treatment to patients whose condition was classified as hopeless and incurable a few years ago. These patients represented no expense to the prepayment plans because there was no treatment for them," Mr. Brown stated.

Many hospital patients are undergoing therapy that was unknown just a few years ago. Much of this new therapy is difficult and of long duration, pointed out Mr. Brown. The effort on behalf of these patients consumes an increased number of more costly hospital days that represent a net addition to the pay-out total of the community's prepayment plan, he said.

Chest Physicians Sponsor Contest

Three cash awards will go to the winners of the 1959 prize essay contest to be sponsored by the American College of Chest Physicians for undergraduate medical students throughout the world. A first prize of $500, a second of $300, and a third of $200 will be given for the best essays written on any phase of the diagnosis and treatment of chest diseases (cardiovascular or pulmonary). The contest closes on April 15. For application and further information, those interested may write the American College of Chest Physicians, 112 East Chestnut Street, Chicago 11.

Essay Contest on Bronchogenic Cancer Announced

The Caleb Fiske Prize of the Rhode Island Medical Society has been announced by the trustees of the Caleb Fiske Fund. The subject chosen for the contest is "Bronchogenic Carcinoma—Predisposing Causes." Essays must be submitted by December 31; $300 will be given. For complete information, one may write the Secretary, Caleb Fiske Fund, Rhode Island Medical Society, 106 Francis Street, Providence 3.

Executives Are Getting Thinner

Executives are getting thinner, according to the Health Insurance Institute. In the last 15 years, the number of overweight executives has been reduced a third. These findings are the result of a study made of 5,000 of the nation's executives by the Life Extension Examiners, a national medical group concerned with preventive medicine by way of regular medical examinations.

The main reason for the change is that executives have been made to realize the importance of keeping their weight down as a part of their personal health, said the medical director of the examiners. Business and industry sponsored health programs, through regular health examinations, have focused attention on this help yourself phase of staying well.

Correction in TB Topics

In the September issue of the *Journal* on page 677, the first sentence of the second paragraph under "How?" in the article on "TB Topics: Tuberculin Tests" should read: "In diagnostic work PPD first strength or O.T. .1 cc. in 1/10,000 dilution is used."

Heart Examinations Analyzed

The 6,000 heart and chest examinations given doctors attending the past three American Medical Association meetings were analyzed at the recent American Medical Association meeting in San Francisco by Dr. Charles E. McArthur, Olympia, Wash., chairman of the Section on General Practice.

He concluded that (1) doctors are a pretty sick group; (2) they are nervous, tense, and worry excessively; (3) they get insufficient exercise along with inadequate or incorrect diets; and (4) they have a higher annual death rate than the rest of the population. Eighteen per cent of electrocardiograms and chest photofluorograms—approximately 3,000 of each—showed abnormalities including tuberculosis and chest neoplasms, according to Dr. McArthur.

Advertising to Doctors Declines

The amount of advertising by direct mail directed to physicians declined last year, according to the annual survey of Clark-O'Neill Inc. as reported in the July 7 issue of *Advertising Age*.

Clark-O'Neill, a direct mail house who has been keeping track of the mail received by the general practitioner for 15 years, reports that its average doctor received 4,901 mailings during the year, compared to 5,041 in the previous year. Clark-O'Neill's year ends on April 30.

Tranquilizers were the most heavily promoted products. Cardiovascular drugs were second and vitamins third.

Van Meter Award Announced

The Van Meter Prize Award and two honorable mentions will be given by the American Goiter Association for the best essays submitted concerning original work on problems related to the thyroid gland at the annual meeting of the association, in Chicago, April 30-May 2. Subjects may cover either clinical or research investigations; papers should not exceed 3,000 words. Duplicate copies should be sent by January 15 to the Secretary, Dr. John C. McClintock, 149½ Washington Avenue, Albany 10, N. Y. Additional information also may be obtained by writing Dr. McClintock.

Heart Valve Surgery

A technique for evaluating the effects of heart valve surgery while an operation is in progress has been developed by a team of surgeons and cardiologists at the Public Health Service's National Heart Institute in Bethesda, Md. With this technique, direct measurements are made of the heart's output of blood and of differences in pressure on each side of stenosed valve openings just before and after these openings are surgically enlarged.

Blood Transfusion Standards Approved

Standards for evaluating and comparing policies and technical procedures of blood transfusion services throughout the country were established recently by the Joint Blood Council, Inc.

Described in the approved standards are methods for the collection of blood from donors, storage, laboratory processing, and preparation of certain blood derivatives as well as testing procedures to insure compatability with patients' blood. The new requirements compare with those of the National Institutes of Health and extend to methods of assuring proper dispensing of blood. The council will not inspect or accredit blood transfusion services but will permit the adoption of these standards by accrediting agencies such as state health departments, medical societies, and hospital associations.

Hearing Concepts Translated

"New Concepts in the Theory of Hearing" have been translated in booklet form from a lecture delivered by Dr. Hans Kietz at the University Clinic in Hamburg-Eppendorf in December, 1956. This is the ninth in the Translation Series sponsored by the Beltone Institute for Hearing Research. The translations are issued without charge to the medical profession, universities, clinics, libraries, audiologists, and other qualified professionals. They may be secured by writing to the Beltone Institute for Hearing Research, 2900 W. 36th St., Chicago 32.

Hospital Studies Electronic Equipment

A grant of $52,000 for the study of how electronic data processing equipment may best be adapted for hospital use will be carried out by the Baylor University Hospital in Dallas, according to Dr. Edwin L. Crosby, chairman of the board of governors of the Hospital Research and Educational Trust. The John A. Hartford Foundation is making the grant available. The study will include the areas of patients' buildings, accounts payable, perpetual inventories, medical records, statistics, payroll, and insurance.

Board of Obstetrics and Gynecology Exams

The American Board of Obstetrics and Gynecology will give Part I examinations in various parts of the United States and Canada on January 16. Candidates notified of eligibility to participate must submit their case abstracts within 30 days of notification. No candidate may take the written examination unless the case abstracts have been received in the office of the secretary. Current bulletins outlining requirements may be received by writing the Secretary, Dr. Robert L. Faulkner, 2105 Adelbert Road, Cleveland 6.

Psychiatric Guide Published

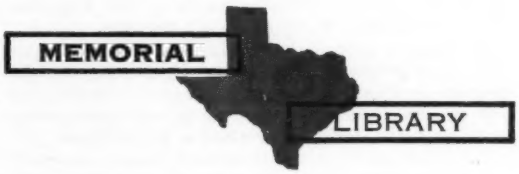
A "Physician's Guide to Psychiatric Tests and Terminology" has been made available by Schering Corporation for the medical profession. The booklet, which is a monograph of tests and terminology employed in psychiatric treatment, is designed to offer a concise reference and guide for the physician in his application of psychiatry in the care of patients.

Guide Measures Sick Absences

A guide for measuring work absence due to illness or injury has been designed by the American Medical Association's Committee on Medical Care of Industrial Workers. It contains various definitions and formulas which the committee hopes will serve as a foundation for the uniform collection of sickness absence statistics by management.

The Committee on Medical Care of Industrial Workers is a joint committee of the American Medical Association's Councils on Industrial Health and on Medical Service. Copies of the 11 page guide may be obtained from either of the councils by writing the American Medical Association, 535 North Dearborn Street, Chicago 10.

Men require more hospital treatment than women, Health Information Foundation states, even though women's admission rates are much higher during the childbearing years.



The Physician Who Became Pope

By modern standards, the transformation of a successful practicing physician into a pope is almost unthinkable. Yet this is precisely what happened in the thirteenth century when the renowned Petrus Hispanus exchanged his physician's urineglass and scalpel for the papal ring and keys to become Pope John XXI.

It must be remembered that the thirteenth century was a period of intellectual awakening that marked the beginnings of the Renaissance. One of the characteristics of the period was its union of medicine and theology, due chiefly to the fact that virtually all learning for centuries had been in the hands of the clergy.

Petrus was born in Lisbon between 1210 and 1220. Little is known of his early life. He was the son of a Lisbon physician, Julianus. He first appeared as a student at the University of Paris. There, as a fellow student of Roger Bacon, he came under the influence of the great logician, William Shyreswood.

As medicine was not then sharply separated from the other branches of philosophical learning, it was not abnormal for Petrus to pass from the logic of Aristotle and the Arabian philosophers to medicine.

During the middle of the thirteenth century Petrus was a teacher of medicine at Siena when that ambitious town was about to establish its own university. It was here that he wrote his first medical work, "A Dietetic Treatment of Surgical Patients," at the request of his colleague, a surgeon, John Mordentis of Faenza.

Before his election to the papacy, Petrus had become not only a high church dignitary but a popular and famous practicing physician. His name was a medical household word in the middle ages.

An Italian, Ottoboni Fleschi, Pope Adrian V, was the preceding pope. Adrian had suffered so much during his

election at the conclave supervised by Charles of Anjou that he lived only 38 days as pope and died at Viterbo, August 18, 1276.

A new conclave was assembled at once. Because of the hot weather and assaults from the excitable Viterbians, a compromise candidate hastily was elected by the cardinals. On September 20, 1276, the Cardinal Bishop of Tusculum, Petrus Hispanus, was elected Pope John XXI.

The choice logically should have gone to the great Cardinal Deacon John Cajetanus Orsini, but the conclave did not wish to offend Charles of Anjou by electing an Italian, so they picked a man from the neutral country of Portugal. However, John Cajetanus Orsini had not long to wait. He soon succeeded the man whose election he himself had brought about. As Nicholas III he followed Pope John a year later in 1277.

Pope John's reign, though popular, was shortened by a strange accident. He was engaged in the study of the problems of the papacy when on May 14, 1277, the ceiling of his workroom crashed down upon him. He died 6 days later.

Pope John was buried at Viterbo in the Church of San Lorenzo. His grave was forgotten until 1886, when at the expense of the Portugese ambassador and Pope Leo XIII a monument was erected to his memory.

The greatest work of Petrus Hispanus was the popular "Thesaurus Pauperum" (Treasury of Medicine for the Poor Man). This famous treatise was printed for the first time at Antwerp in 1476. The book probably was written at the court of Gregory X, to whom it was dedicated.

The "Thesaurus" is a collection of recipes for every disease then known. Beginning at the top of the head with a "cure for the falynge heare" and ending with "a drinke agaynst the fistule," this book had an enormous vogue in the middle ages. By being copied and recopied, before the discovery of printing in 1450, every copyist added his own favorite prescription until the work finally became a mixture of medical treatment and magical formulas of the most grotesque sort. For example, "Agaynst dronkennes—Give unto that man that is given to dronkennes the leghtes of a shepe, and he shall feele no dronkennes. Give unto a dronken man the ashes of burnt swalowes and he shal not be dronke whyle he lyveth." "For bledynge at the nose—The joyce of hogges dounge case into the nostrelles doth restrayne the bloud." "To provoke the floures—A supposytory or pessairie of cotton dypt in Tirbyntyne doth clense the matrice."

The chapter "of the Colyke and the Payne called iliaca passion" undoubtedly refers to appendicitis.

The above, though very crude, represents treatment before anatomy was given to us by Vesalius and the circulation of the blood by Harvey.

At the present time, Pope John XXI has his name attached to an international prize for medical ethics. The "John XXI International Prise for Medical Ethics" was instituted at Paris in 1951 by the Association of Portuguese Catholic Doctors. The competition theme is "Responsibility of the Doctor Before the Actual World." The prize consists of 5,000 Belgian francs.

At St. Paul's Basilica in Rome a frieze with medallion portraits of the popes contains a likeness of John XXI, the only physician who ever sat in the chair of St. Peter in Rome.

Reference

Riesman, David: A Physician in the Papal Chair, Ann. Med. Hist. 5:291-300 (Winter) 1923.

—WILLIAM M. CRAWFORD, M.D., Fort Worth.

Gifts to the Library

Dr. Howard O. Smith, Austin, 64 books.
Dr. Troy A. Shafer, Harlingen, 276 journals.
Dr. Robert G. McCorkle, Jr., Austin, 9 books, 8 journals.
Dr. Lorraine I. Stengl, El Campo, 70 journals, 25 reprints.
Dr. Sam N. Key, Jr., Austin, 18 journals.
Dr. J. E. Johnson, Austin, 4 journals.
Dr. Henry L. Hilgartner, Austin, 39 journals, 9 reprints.
Holy Cross Hospital, Austin, 122 books.
Dr. Dor W. Brown, Jr., Fredericksburg, 68 journals.
Dr. Fred L. Adair, Maitland, Fla., 13 journals, 27 reprints.
Dr. Charles F. Pelphrey, Austin, 117 journals.

★ Books

Books Newly Acquired

Whayne, T. F., and DeBakey, M. E.: *Cold Injury, Ground Type,* Washington, Office of the Surgeon General, 1958.

Paschkis, Karl E.; Rakoff, Abraham E.; and Cantarow, Abraham: *Clinical Endocrinology,* New York, Hoeber-Harper, 1958.

Reitzes, Detrich: *Negroes and Medicine,* Cambridge, Harvard University Press, 1958.

Covalt, Donald A.: *Rehabilitation in Industry,* New York, Grune and Stratton, 1958.

Atkinson, Donald T.: *Texas Surgeon, An Autobiography,* New York, Ives Washburn, 1958.

Viscardi, Henry, Jr.: *A Man's Stature,* New York, John Day, 1952.

Jackson, Ruth: *Cervical Syndrome,* ed. 2, Springfield, Ill., Charles C Thomas, 1958.

Mathison, Richard R.: *The Eternal Search, The Story of Man and His Drugs,* New York, Putnam's, 1958.

Licht, Sidney: *Therapeutic Exercise,* New Haven, Elizabeth Licht, 1958.

Flint, Thomas: *Emergency Treatment and Management,* ed. 2, Philadelphia, Saunders, 1958.

Anson, Berry J., and Maddock, Walter G.: *Callander's Surgical Anatomy,* ed. 4, Philadelphia, Saunders, 1958.

Grant, John Charles Boileau: *A Method of Anatomy,* ed. 6, Baltimore, Williams and Wilkins, 1958.

Speed, J. S.: *Campbell's Operative Orthopaedics,* ed. 3, St. Louis, C. V. Mosby, 1956.

Texas State Plan for Construction of Hospitals, Rehabilitation Facilities, Diagnostic and Treatment Centers, Nursing Homes, and Public Health Centers, Texas State Department of Health, Austin, 1958.

Edmunds, Vincent, and Scorer, C. Gordon: *Ideals in Medicine,* Chicago, Christian Medical Society, 1958.

Koppanyi, T., and Karczmar, A. G.: *Experimental Pharmacodynamics,* Minneapolis, Burgess Publishing Co., 1958.

Kubie, Lawrence S.: *Neurotic Distortion of the Creative Process,* Lawrence, University of Kansas Press, 1958.

Rusk, Howard A.: *Rehabilitation Medicine,* St. Louis, C. V. Mosby, 1958.

Gurdjian, E. S., and Webster, J. E.: *Mechanisms, Diagnosis and Management of Head Injuries,* Boston, Brown Little, 1958.

Book Notes

Surgery in World War II: Ophthalmology and Otolaryngology

COL. JOHN BOYD COATES, JR., M.C., Ed.; M. ELLIOTT RANDOLPH, M.D., Ophthalmology Ed.; NORTON CANFIELD, M. D., Otolaryngology Ed.; ELIZABETH M. MCFETRIDGE, M.A., Assoc. Ed., 605 pages. Washington, D. C., Office of the Surgeon General, Department of the Army, 1957.

Like others covering other subjects in World War II, this publication has been well organized and well presented. The illustrations are of the best quality and are quite instructive. The presentation of the subject of functions by the senior consultant in ophthalmology is well presented and will be read with considerable interest by anyone who has had consultant duties of one type or another. This book should be especially interesting to anyone in industrial work or other occupations in which eye injuries occur. A rather extensive treatment of the important subject of rehabilitation is given thorough attention. Foreign bodies and their localization and removal are given adequate coverage. Uveitis, retinal detachments, nutritional ambyopia, night blindness, and other types of visual disturbances all come in for their share of discussion in proportion to their importance, both to the service and the individual.

It is recommended reading for those interested in injuries of the face and neck, and of particular interest to those concerned with eye and ear work. It has many helpful hints in the management and rehabilitation of injured patients.

—Joe C. Rude, M.D., Austin.

Biochemistry of Some Peptide And Steroid Antibiotics

E. P. ABRAHAM. 96 pages. New York, John Wiley and Sons, 1957.

Love, Skill and Mystery; A Handbook to Marriage

THEODOR BOVET. 188 pages. $3.50. Garden City, New York, Doubleday and Company, 1958.

Viral Encephalitis

A Symposium. Fifth Annual Scientific Meeting of the Houston Neurological Society, Texas Medical Center, Houston, Texas. Compiled and edited by WILLIAM S. FIELDS, Chairman, Division of Neurology, Baylor University College of Medicine, and RUSSELL J. BLATTNER, Chairman, Department of Pediatrics, Baylor University College of Medicine. 225 pages. $7. Springfield, Ill., Charles C Thomas, 1958.

This discussion of the viral encephalitides offers many practical values to the general physician. The authors stress practical epidemiology of the arthropod borne viral encephalitis including indictment of mosquito and ticks while citing wild mammals and birds as reservoir hosts.

The central nervous system viral diseases were divided into epidemic, sporadic, and post infectious encephalitis. Each group was discussed from the viewpoint of distinctive clinical and laboratory data that aid in establishing an individual diagnosis. Many of these studies are readily available while others require special study and equipment for which the average laboratory may not be prepared.

The clinical, gross and microscopic pathology of viral encephalitis in man were presented in detail. This portion of the text outlines with sufficient clarity for general appreciation the fundamental factor in making presumptive diagnosis.

Current trends in the control of neurologic viral diseases were discussed. This includes the vaccine for poliomyelitis and use of antirabies serum as well as rabies vaccine.

The book offers thought provoking clinical information and provides a ready source for detailed pathology and viral relationships.

—John W. Matthews, M.D., Edinburg.

The Changing Patient-Doctor Relationship

MARTIN G. VORHAUS, M.D., F.A.C.P. 310 pages. $3.95. New York, Horizon Press, 1957.

Symposium on Diseases And Surgery of the Lens

GEORGE M. HAIK, M.D., F.A.C.S., Ed., Professor of Ophthalmology and Head of the Department, Louisiana State University School of Medicine; ELIZABETH M. MCFETRIDGE, M.A., Assoc. Ed.; DON ALVARADO, Art Ed., Assistant Professor of Medical Illustration and Head of the Department, Louisiana State University School of Medicine. 260 pages. $10.50. St. Louis, C. V. Mosby Co., 1957.

This is a hit! With the list of contributors being Drs. Chandler, Cordes, Dunnington, Irvine, Kinsey, Thorpe, and Vail, one would expect this compilation to be outstanding.

After a chapter on "Embryology of the Lens," the book presents all aspects of adult cataract from diagnosis and classification through surgery and complications. Of particular interest to anyone using a modified knife incision is the excerpt from Smith's "The Treatment of Cataract" with the detailed method of his Graefe knife incision. Portions on wound healing and vitreous changes are outstanding. Throughout the book illustrations are excellent. A large portion of this book is devoted to congenital cataracts and their treatment. This is a complete and informative handling of a neglected subject.

The last portion of this book is devoted to questions and answers pertaining to the subjects covered. This round-table discussion reflects the different methods of excellent men in dealing with common problems and is interesting as well as informative.

—Robert M. Rothen, M.D., Austin.

Deafness, Mutism and Mental Deficiency in Children

LOUIS MINSKI, M.D., F.R.C.P., Consultant Psychiatrist, Royal National Throat, Nose and Ear Hospital, London. 82 pages. $3.75. New York, Philosophical Library, Inc., 1957.

A solution to the difficult problem of differentiating by routine methods deafness, mutism, mental deficiency, and mental illness in children is outlined in this short book. The author reviews the various clinical causes of deafness in children, describes the resulting speech disorders, and emphasizes that neurotic reactions are commonly associated with deafness in children. His aim is the prevention of misplacement of such a child, who might by routine studies be considered either psychotic or mentally retarded.

This monograph describes the procedure carried out in a special unit designed particularly to carry out such an aim. This unit resembled a home siutation as much as possible. The unit admitted only eight children at one time, and the duration of stay was limited to 3 weeks. Day to day observation of the child in this environment as well as his reaction to various daily situations proved to be helpful in the diagnosis. A specially trained teacher for the deaf worked with the children, who were at the same time having audimetric studies, electroencephalographic studies, and specialized psychological testing. The author

describes a battery of psychological tests in which verbal ability plays a negligible part. The children in whom the emotional disturbance was too great to make a positive diagnosis within 3 weeks were transferred to another unit for longer observation.

This book renders valuable assistance in a field which is extremely difficult.

—Gretchen Runge, M.D., Austin.

The Essence of Surgery

C. STUART WELCH, M.D., Ph.D., Professor of Surgery, Albany Medical College of Union University, and SAMUEL R. POWERS, JR., M.D., M.Sc.D., Professor of Experimental Surgery, Albany Medical College of Union University. 320 pages. $7. Philadelphia, W. B. Saunders Co., 1958.

A review of various aspects of surgery, not only as a profession, but as a long standing art, is given in this book. It is composed of 12 chapters dealing with the history of surgery from antiquity through two world wars until today, covering physiology of injury, wound healing, fluid loss, infection, preoperative and postoperative care, surgical technique, and three types of surgery—extirpative, reconstructive, and physiologic—with a final chapter on anesthesia.

The chapters on fluid balance, preoperative and postoperative care, and surgical technique are particularly good, as are the approaches to surgery from the extirpative and physiological standpoints. This is certainly new food for thought, and new opinions are brought to light which have been varnished over or assumed to be known in years past. For example, the authors discuss lumbar sympathectomy, subtotal gastric resection, and various corrective heart surgery operations as physiologic surgical procedures. Truly, this is a new consideration of some old and new operations.

The closing chapter on anesthesia is much too short, and the historical discussion of surgery may be a little too philosophical for some readers. In general, however, this book does have a place in the progressive years of medical students, interns, residents, and young general practitioners. It certainly deserves consideration from anyone doing active surgery.

—Harry C. Powell, Jr., M.D., Austin.

The Relation of Psychiatry To Pharmacology

ABRAHAM WIKLER, M.D., National Institute of Mental Health, Addiction Research Center, Department of Health, Education, and Welfare, Public Health Service Hospital, Lexington, Ky. 322 pages. $4. Published for the American Society for Pharmacology and Experimental Therapeutics. Baltimore, Williams and Wilkins Co., 1957.

This is a timely survey and review of the literature in the field of the relation of psychiatry and pharmacology. The author points out that while certain "organic" behavior disorders have yielded to "specific" therapies, little is known about the actual results or the mechanism by which chemical compounds affect "functional" psychoses and the psychoneuroses. This is not due to a lack of "data" as his list of references will attest. His possible explanations are that the older drugs were not put to such thorough testing as the newer ones and that communication between pharmacologist and psychiatrist has not been close. He asks for better communication between the two disciplines with studies of facts and theories of both.

The book is divided into two sections, "The Effects of Drugs on Human Behavior" and "Theories and Mechanisms of Drug Action." The drugs reviewed are insulin, carbon dioxide, barbiturates, amphetamine, methamphetamine, tranquilizers, lysergic acid diethylamide, and mescaline.

This type material, often considered slow reading, is nonetheless presented in a readable manner. One is amazed yet reassured by the research being done. By such study, experimentation, and integration, our knowledge and understanding of the interrelationship between drugs and psychiatry will become clear.

—A. D. Pattillo, M.D., Austin.

The Physiologic Basis Of Gastrointestinal Therapy: Selected Topics

HEINRICH NECHELES, M.D., Ph.D., F.A.C.P., Director, Department of Gastro-Intestinal Research, Medical Research Institute of Michael Reese Hospital, and MARTIN M. KIRSHEN, M.D., F.A.C.P., Professor of Clinical Medicine, Chicago Medical School. 330 pages. $8.75. New York, Grune and Stratton, 1957.

This is a well written compact volume of interest to all students of gastroenterology.

The chapters on innervation, intestinal motility, and drug action are adequate for understanding the physiology and the treatment of symptoms arising from the complex gastrointestinal tract. As the clinical sections on ulcer, gallbladder, liver, and pancreas are reviewed, the reader will be impressed by the authors' intimate knowledge of practical medicine. Their information was derived from actual experience with the sick patient in the office and hospital as well as many hours which were spent in the research laboratory.

The medical student, the practitioner, the specialist, as well as the clinical teacher will find this volume a useful addition to his office or home library. The book is well written, very informative, with a complete bibliography following each chapter.

—Lawrence B. Sheldon, M.D., Dallas.

Clinical Electrocardiography; Interpretation on a Physiologic Basis

MANUEL GARDBERG, M.D., Clinical Associate Professor of Medicine, Louisiana State University School of Medicine; Director of the Cardiac Research Laboratory of the Touro Infirmary, New Orleans. 313 pages. $12.75. New York, Harper and Brothers, 1957.

This is a practical book for the student, teacher, and practitioner who have had no previous training in electrocardiography. The electrical phenomenon such as the electrolyte balance is dealt with in a simple and practical way in its influence on the depolarization and repolarization of the heart muscles in regard to spatial plans.

The various complexes are dealt with in a practical and simple manner also. The leads are taken up in sequence and the affect of electrolytes and injury dealt with accordingly.

All of the various conditions are dealt with in a qualitative and quantitative manner which is illustrative of each condition.

There are numerous illustrations of each condition which are practical and self explanatory.

Explanations of the arrhythmas and diseased conditions of the heart are full and complete with the effects of the various drugs and their application.

I have no hesitancy in recommending this treatise to the premedical and medical profession.

—Loyd Deason, M.D., Henderson.

Endocrine Pathology of the Ovary

JOHN MCLEAN MORRIS, M.D., Associate Professor of Gynecology, Yale University School of Medicine, New Haven, and ROBERT E. SCULLY, M.D., Clinical Associate in Pathology, Harvard Medical School, Boston. 151 pages. $8.50. St. Louis, C. V. Mosby Co., 1958.

The book is well written and covers the subject well. At the end one feels as if one had just had a good postgraduate course in abnormal endocrinology of the ovary. It should be an excellent reference book for gynecologists, pediatricians, or internists who are confronted by a clinical picture of endocrine disorders in the female due to functioning ovarian tumors. Each chapter has a long list of references for those wishing more literature and further information about a given tumor. Several tables are included that give a rapid breakdown on the hormones, symptoms, and signs found with the various tumors. The pathological plates are excellent black and white pictures.

—Charles H. Todd, Jr., M.D., Beaumont.

Clinical Heart Disease

SAMUEL A. LEVINE, M.D., F.A.C.P., Clinical Professor of Medicine, Harvard Medical School; Consultant Cardiologist, Newton-Wellesley Hospital. ed. 5, illustrated. 673 pages. $9.50. Philadelphia, W. B. Saunders Co., 1958.

Some 20 years ago, Dr. Levine presented his first edition of "Clinical Heart Disease" to the medical profession. Since then it and succeeding revisions have served as standard references for all interested in the subject. Students and physicians have found in these volumes information pertaining to the various aspects of diseases of the heart presented in an interesting, orderly, and usable fashion. These may have been found in other texts, but without the philosophy, the practicality, and the simplicity which comes only from the pen of a master teacher, experienced clinician, and humanitarian such as Dr. Levine.

This new edition contains the information gleaned from past decades of practice as well as newer and less controversial material taken from the masses of contemporary publications.

The format is similar to that of previous editions, with more space being allotted to the field of electrocardiography, edited by Dr. Harold D. Levine.

The first 20 chapters are devoted to discussion of the various etiologic types of heart disease, their natural histories, complications, and treatments. Each facet is presented from the clinician's point of view, with the newer concepts, some of which as yet are unproved, woven into the fabric of long accepted beliefs in a manner conducive to greater clarification of the entire subject matter.

At a time when the current literature is filled with articles emphasizing the biochemcial, biophysical, and surgical aspects of cardiology, it is well to have a haven of escape from the chaos of half-proved theories. It is somehow refreshing to review subject matter pertaining to patients ill with the commoner heart maladies and to relearn therapeutic procedures.

There is no student, house officer, or practicing physician who could not gain immeasurably from repeated sessions with this newest edition of Dr. Samuel A. Levine's classic.

—William H. Gordon, M.D., Lubbock.

Memoirs of a G.P.

OTIS MARSHALL, M.D. 155 pages. $3.50. New York, Vantage Press, 1958.

A Primer on Common Functional Disorders; Practical Diagnosis and Management

JACK W. FLEMING, M.D., Department of Internal Medicine, The Medical Center Clinic, Pensacola, Fla. 174 pages. $5. Boston, Little, Brown and Co., 1958.

★ American Medical Association

Texans to Attend AMA Clinical Session

Texas doctors will attend the twelfth clinical session of the American Medical Association at the Leamington Hotel in Minneapolis December 2-5. Approximately 3,000 American physicians are expected to be on hand for the meeting, which is designed to help the family physician solve his daily practice problems.

Dr. J. B. Copeland of San Antonio, who will serve as a delegate, has been appointed chairman of the Reference Committee on Miscellaneous Business. The appointment was made by Dr. R. Vincent Askey of Los Angeles, who is speaker of the House of Delegates. Texas delegates to attend are Dr. John K. Glen, Houston; Dr. Milford O. Rouse, Dallas; Dr. Troy A. Shafer, Harlingen; Dr. Ridings E. Lee, Dallas; and Dr. T. C. Terrell, Fort Worth. One more delegate will be appointed from the alternate delegates.

Alternate delegates will include Dr. G. W. Cleveland, Austin; Dr. James W. Rainer, Odessa; Dr. J. C. Terrell, Stephenville; Dr. E. P. Hall, Jr., Fort Worth; and Dr. Denton Kerr, Houston. Others attending are C. Lincoln Williston, Austin, Executive Secretary of the Texas Medical Association, and Philip R. Overton, Austin, General Counsel for the Association.

Texas physicians participating in the program include Drs. Truman G. Blocker, Jr., Galveston; Jesse E. Thompson, Dallas; and V. John Kinross-Wright, Michael E. DeBakey, Denton A. Cooley, and E. Stanley Crawford, all of Houston. Those presenting scientific exhibits are Drs. T. G. Gready, Jr., W. J. Estrada, Joe B. Haden, A. A. Mintz, F. T. Matthews, A. L. Megarity, and V. John Kinross-Wright, all of Houston.

The Texas hospitality room will be in the Leamington Hotel.

There will be 100 scientific exhibits prepared by physicians and 130 industrial exhibits. Nearly 200 physicians will participate in lecture meetings, symposiums, and panel discussions on such subjects as neurology, cardiovascular disease, arthritis, and orthopedics. The medical motion picture program will include 35 films.

A highlight of the session will be a trans-Atlantic conference between American Medical Association members in Minneapolis and British Medical Association members in Southampton, England. Among the topics will be cardiac by-pass, orthopedic problems of the extremities, and cesarean section. The General Practitioner of the Year will be named at the opening session of the House of Delegates.

AMA Begins $2,000,000 Building Remodeling Job

The American Medical Association has contracted for a $2,000,000 modernization program of its headquarters building in Chicago, anounced Dr. F. J. L. Blasingame, executive vice-president. The job of remodeling the nine story granite building, which houses a staff of 650, is already underway.

The contract calls for installation of new lobbies, entrances, air conditioning, and automatic elevators, and for complete modernization of all corridors and offices, with dropped acoustic ceilings, fluorescent lighting, new flooring, new walnut paneling, and glass partitions. The job will require 24 months and will provide adequate meeting space and restaurant facilities for employees and visiting physician members. The AMA has occupied its present site since 1902.

AMA Publishes Physician Directory

A new directory listing the more than 250,000 physicians in the United States and Canada was published September 30 by the American Medical Association. It includes a total of 250,621 physicians, 9,983 more doctors than the 1956 edition.

The physician's age, address, date of licensure, specialty, and membership in specialty medical groups is given in the directory. According to the directory, there are 90,359 general practitioners in private practice and 77,655 specialists. There are 7,320 doctors in medical schools, research, and other work outside of private practice, and 17,303 holding full-time jobs on hospital staffs.

★ Texas Medical Association

Scientific Exhibits Solicited for Annual Session

Applications for scientific exhibits for the 1959 annual session of the Texas Medical Association to be held in San Antonio now are being accepted.

The Committee on Scientific Exhibits, which must approve all applications for space, will hold its regular meeting on January 18 to review applications received by that date. To insure exhibit space, doctors are urged by Dr. J. Edward Johnson of Austin, chairman of the committee, to submit their applications before then. Applications need not be delayed until the exhibitor knows the exact dimensions and details, for any information not definite may be marked tentative and may be submitted by letter when it is available.

Deadline for applications is January 25. Those received after that date may still be accepted if space is available; however, a description of such exhibits will not appear in the *Texas State Journal of Medicine* or in the final program.

For awards, exhibits will be graded on teaching value, practical value, scientific level, personal presentation, eye appeal, and miscellaneous points. Representative exhibits are especially needed from the following fields: neuropsychiatry, pediatrics, dermatology, obstetrics and gynecology, gastroenterology, radiology, pathology, orthopedics, and ophthalmology, otology, laryngology, and rhinology.

For an application blank, anyone interested in exhibiting may write Jon R. Hornaday, coordinator of exhibits, Texas Medical Association, 1801 North Lamar, Austin.

As noted in the October *Journal*, hotel reservations are being honored now by San Antonio hotels and motels for the period of the annual session. Requests for bedrooms should be sent direct to the hotel of choice. Blocks of rooms at the Hilton Hotel will be held until March 1 for Association guest speakers, officials, delegates, and exhibitors and at the St. Anthony Hotel until January 31 for members of the Woman's Auxiliary Executive Board; thereafter, the rooms will be available on a first come, first served basis. All rooms elsewhere promised for the medical meeting may be allocated immediately to anyone planning to attend. The San Antonio hotelmen encourage physicians and their families who plan to remain after the annual session to participate in Fiesta activities to make their reservations as early as possible and indicate at the outset how long they wish to stay.

The annual session will open with committee meetings, some specialty society programs, and the first meeting of the House of Delegates on Saturday, April 18, and conclude with a full day of programs and entertainment Tuesday, April 21. Fiesta events will continue throughout the week, culminating in a final parade Saturday night, April 25.

Socio-Economic Programs Planned for Medical Societies

Socio-economic programs, as well as a variety of clinical scientific programs, are available to county medical societies through the speakers bureau of the Texas Medical Association. Announcement of current programs which can be arranged has been mailed to the presidents and secretaries of county societies.

Among the subjects planned for this year are "Legal Aspects of Medical Practice: Malpractice—How to Avoid It," "Legislation," "Medical Economics Considerations in the Practice of Medicine," "Medical Ethics and Medical Etiquette," "Medical Public Relations," "Voluntary Health Insurance," "Workmen's Compensation: Charges, Obligations, and the Law."

An insurance panel program for larger medical societies is a recent selection added to the voluntary health insurance topic. Other programs concerning this subject are the physician's stake in voluntary health insurance and understanding and working with voluntary health insurance in one's office practice.

January Conference to Aid County Society Officers

Five guest speakers have accepted invitations to speak at the Texas Medical Association's seventh annual Conference of County Medical Society Officials to be held January 24 at the headquarters building of the Texas Medical Association in Austin. Other speakers will be announced later.

Those who have accepted are Dr. Ernest B. Howard, Chicago, assistant executive vice-president of the American Medical Association; George Bugbee, New York, president of the Health Information Foundation; Dr. Donald E. Stubbs, Washington, D. C., chairman of the board of trustees of the Blue Shield Commission; Frank Ikard, Wichita Falls, representative from the Thirteenth Congres-

sional District; and Dr. John E. McDonald, member of the American Medical Association's Committee on Legislature, Tulsa.

A panel discussion on "What's Ahead for Medicine in 1959" will be presented to officers of county medical societies during the afternoon program. A legislative symposium has been planned during the morning. An orientation program, designed to acquaint new members with the services of the Association, will be held simultaneously with sessions of the conference.

Meetings of the various committees of the Association will meet January 23-25 and will report to the interim policymaking body of the Association, the Executive Council, on the morning of January 25.

Civil Defense Booklet Sent to County Societies

A civil defense booklet on "Principles of Mass Medical Care in Defense and Disasters: Administration" is being mailed to presidents and secretaries of county medical societies by the Texas Medical Association and to civil defense chairmen of county medical societies by the Texas State Department of Health.

The booklet, written by members of the Association's Committee on National Emergency Medical Service, is a comprehensive plan of how to administer care in case of a hydrogen bomb attack.

★ County Societies

Press-Physician Relationship Needs Further Understanding

"Doctors are indispensable to the press, and the press is indispensable to doctors," says the editor of the *Texarkana News and Gazette.*

Texas editors and publishers respect the doctor's ethics, but expect his cooperation, according to a survey made by Bill Barnard, Dallas, chief of bureau of the *Associated Press* in preparation for a speech made to the Fifth and Sixth District Medical Society at its meeting this year. The editors surveyed agreed that relationships between the physicians and newspapermen have improved through the years, but mutual trust and respect can bring further improvement.

"The kind of cooperation we would like from doctors is that they show the same faith in us that we show in them," comments the editor of the *Fort Worth Star-Telegram.* Of similar opinion is the executive editor of the *Dallas Times Herald,* who says, "We want the confidence of doctors and we want their stories—not just as type to fill our columns but to keep them in contact with their community and the people who hold them in reverence."

"The press-doctor-hospital relationship is a two-way street," the publisher of the *Sherman Democrat* points out. "The reporter must understand the medical mind, show adequate respect for the question of ethics, and cultivate doctors on an individual basis. Then when a big story breaks, they will be frank with you without fear of becoming a target of their fellow doctors or medical association," he emphasizes.

Many editors believe that material on illnesses and injuries should be printed and that the doctor is the most accurate news source for this information. Therefore, newspapermen report attempts to cooperate with physicians and expect the same thing from them . . . and this policy seems to work with most of those surveyed. The editor of the *Denison Herald* believes that reporters should do more to convince doctors that in furnishing information about accident victims and sick people they are not catering to nosey curiosity, but are serving the public's wholesome and legitimate interest in what happens to the other fellow.

There is a desire among editors for physicians to disseminate information about health in the public interest and to be forthright, simple, and plain in their presentations to the press.

"In every medical society there are a few doctors who can translate medical jargon into English. These fellows are the ones who can start the ball rolling in establishing a cooperative relationship between medical people and newspaper folk," observes the editor of the *Waco Times Herald and News Tribune.*

One of the worst things a doctor can do, according to the editor of the *Beaumont Enterprise,* is to attempt to protect an individual or segment of individuals at the expense of the public. "In instances where medical information is needed for a story, it should be provided. Many times the public welfare calls for the medical profession to stand up," he says.

Newspapermen want doctors to let them be the judge as to the value of medical news and what should or should not be printed, according to the results of the survey. Several emphasized that doctors should be aware that members of the press try to avoid sensationalism and inaccuracy in reporting medical news. Many newspapers have reporters who make a special study of medical subjects.

Numerous medical articles printed in Texas newspapers point out the improvement made in press-physician relationships over the past years.

"I witness operations, talk to sick people and their relatives, visit chemical labs, hospital rooms, and research centers," says Judy Bonner, medical reporter for the *Dallas Times Herald.* "I think I have trained myself to the point that I understand my interviews, ask reasonably intelligent questions, and, I hope, write readable stories."

Editors surveyed praised public relations committees which have been appointed by county medical societies. The publisher of the *Marshall News-Messenger* reports

that the Harrison County Society has set up a public relations committee "which works beautifully and has been of tremendous help to the newspaper." One managing editor feels that medical schools should offer courses in public relations. He mentions "top officers of the American Medical Association and Texas Medical Association preach an enlightened gospel of public relations but many doctors on the local level do not follow it."

Anson Jones Award

In 1956, the Texas Medical Association's Committee on Public Relations recognized that it should do something to develop a continuing interest in the field of medical writing for the lay public. Hence, the Anson Jones Award of $250 and a bronze plaque for outstanding lay medical reporting was established. It is hoped that the award, named after Dr. Anson Jones, a physician, journalist, and statesman, will help foster accurate reporting and thereby a firmer and more understanding relationship between newspapers and doctors.

Nominations for the award are to be made by the county medical societies to the Association's Executive Secretary in Austin prior to January 1 each year. The nomination may be based on a series of articles, a regular column, or one particular phase of reporting. Since 1956, there have been two recipients—Blair Justice of the *Fort Worth Star-Telegram* and Miss Helen Bullock of the *Dallas Morning News*. Bob Hamilton, reporter for the *Moore County News* in Dumas, received a special citation in 1957 for his writing on the weekly.

Press Codes

The Committee on Public Relations of the Texas Medical Association has expressed its approval of press codes between county medical societies and the local press although the Association itself does not have such a code. The only two societies known to have adopted formal codes are Bexar and Navarro County Societies. The Bexar County Society press code was first adopted in 1955 for use by hospitals, newspapers, and radio and television stations. The society now is attempting to work out a revision on the basis of its experience.

The assistant executive editor of the *San Antonio News-Express* believes the code between the San Antonio doctors and his newspaper works effectively. He reports, "The kind of cooperation we want is spelled out in the agreement. We know what a doctor can say and what he can't. We know how not to compromise their good standing."

The advantages and disadvantages of such press codes were explained by John L. Bach, director of press relations for the American Medical Association, Chicago, at the Public Relations Conference of the Texas Medical Association at Austin, September 6.

Scores of county medical societies have adopted press codes, according to Mr. Bach. He said that they can be only as effective as those interested want them to be. Press codes cannot be expected to serve as a front for the solving of all the physicians' problems, he said.

Press codes carry several advantages, according to Mr. Bach. They are (1) in getting any such code approved and adopted a chain of events takes place—dinners, meetings, committee conferences—which lead to a better understanding of each other's problems; (2) by initiating the drafting of such a code, the local medical society is showing proof that its attitude toward writers has changed from definite coolness to warm and friendly cooperation; (3) the work of drafting a code by all parties concerned sets a friendly climate where cooperation can gain a better foothold. Writers then realize the sincerity of physicians in trying to create a better working relationship not only with newspapers but also with all mediums.

Some of the pitfalls which Mr. Bach urged the doctors to guard against when setting up press codes are the following: (1) Doctors should not draft the code on their own and then turn it over to press representatives for implementation. Writers should be consulted in the beginning. (2) Doctors should make their code drafting project a joint endeavor, calling on representatives from the medical society, local hospitals, key health agencies, as well as representatives from all mediums of public information in their area. (3) Doctors should not initiate the drafting of a code and then forget about it after everyone has approved it. They should play host from time to time to all the representatives who were in on the project in the beginning.

"Before you contemplate drafting any code, take a firm policy stand first on the use of doctors' names in a news story," Mr. Bach told the doctors. He pointed out that this is the biggest single gripe which medical science writers hold today against the medical profession. Since there is no unanimity of opinion within the medical profession itself on the use of doctors' names in nonprofessional publications, each society must establish its own policy, he stated. It is difficult for the writer to understand why one county medical society permits use of names and another medical society does not. The newspaperman feels that ethical rules or opinions should be universal, not local.

All newspapermen carry a heavily loaded gun, which can be fired to mold public opinion for good or bad, according to Mr. Bach. Therefore, doctors should work and cooperate with the writers. Nearly all writers try to be careful in what they say, he pointed out; seldom do they misquote and never intentionally.

Since the professional field of medical science writing is growing much larger, the work which doctors do with words in behalf of medicine is important to all doctors, to writers, and to the public, said Mr. Bach. By experience and training, the channels to clear communication can be kept open between the medical profession and all mediums of public information.

County Society News Briefs

Definite progress being made by the public relations committee of the *Tom Green-Coke-Crockett-Concho-Irion-Sterling-Sutton-Schleicher Counties Medical Society* in developing a public relations code for the medical society, hospitals, clinic groups, and press was reported at the October 6 meeting of the society.

A reporter from the *San Angelo Standard-Times,* Miss Mary Ann Jennings, was introduced to the members as the person who will attend the society meetings in the future and write most of the news releases relative to the society. The scientific program consisted of an American Cancer Society film entitled "Time and Two Women." Since the Cancer Society required county medical society approval for the film to be shown to lay groups, the society gave its approval.

Members of the *Pecos-Jeff Davis-Presidio-Brewster Counties Medical Society* and their wives met for a social hour and buffet dinner on October 7 in Fort Stockton. Dr. C. E. Oswalt of Fort Stockton read a paper by Dr. Oscar M. Causley of El Paso on "Uterine Rupture and Its Management" when the author was unable to make his own presentation.

A report of the recent meeting of the Texas Academy of General Practice was presented by Drs. Silas W. Grant, Whitney, and Nellins C. Smith, Hillsboro, at the October 14 meeting of the *Hill County Medical Society* in Hillsboro. The report emphasized that infants should receive immunization against whooping cough, diptheria, tetanus, and smallpox. Also, it was brought out that all persons less than 40 years of age are advised to receive protection from poliomyelitis.

A scientific program entitled "Psychotropic Drugs and Cerebral Metabolism" was presented to *McLennan County Medical Society* on September 9 in Waco by Dr. Carl Friedman, Waco, who discussed tranquilizers and cerebral energizers—how they work and how to use them. Dr. M. C. Carlisle, president of the society, announced that the president of the Waco Bar Association had asked him to appoint several members of his county society to work with the lawyers to iron out differences that might exist between the two organizations.

At a joint dinner meeting of the *Tarrant County Society* and *Dallas County Society* which was held at the Austin "Patio" Ranch in Grapevine on September 9, there were 234 members and guests present. Dr. Kenneth Babcock, Chicago, director of the Joint Commission on Accreditation of Hospitals, spoke on "The History and Philosophy of the Joint Commission." He stressed the importance of keeping accurate records on patients, and stated that three-fourths of the commission's emphasis is on quality of care.

Dr. L. H. Reeves of Fort Worth was presented with a life honorary membership in the Southern Medical Association by Dr. M. O. Rouse, Dallas, president-elect of the association.

Mrs. S. W. Bohls of Austin points to the areas in Texas where medical auxiliaries have been served by the Memorial Library of the Texas Medical Association and where auxiliaries have made contributions to support the Library.

★ Woman's Auxiliary

Philanthropic Funds Of Woman's Auxiliary

One of the projects of the Woman's Auxiliary to the Texas Medical Association each year is to maintain two student loan funds, as well as to contribute to the Memorial and Library Funds and the American Medical Education Foundation.

The George Plunkett Red Student Loan Fund originated from the sales of her book, "The Medicine Man in Texas," which was first printed in 1930. The Student Loan Fund originated from private gifts. Medical Students have borrowed in the amount of $14,275 from the two funds since 1933. Mrs. Robert K. Blair of Houston, chairman, reports that as much as $1,000 may be loaned to a student. At present 64 students are receiving loans.

Each county auxiliary annually contributes to the Memorial Fund of the Woman's Auxiliary. These resources are used to help doctors' widows and dependents who are in staitened circumstances. Mrs. Ramsey Moore, Dallas, is in charge of the trust this year.

Interested members asked that a Library Fund be established to support the Memorial Library of the Texas Medical Association. Replacement of motion picture films and other material offered members created the need. Mrs. S. W. Bohls of Austin is currently chairman of the Auxiliary's Library Fund. The Memorial and the Library Funds, like the American Medical Education Foundation, are maintained not only by individual or county auxiliary gifts—some the result of special money raising projects—but also by sympathy cards sent in lieu of flowers to honor the memory of the deceased. Appropriate cards are provided by the auxiliary of each county society. Last year sympathy cards sent by Liberty-Chambers Counties Auxiliary members averaged $14 per capita for the American Medical Education Foundation.

—Mrs. James M. Coleman, Austin.

RECENT DEATHS

DR. JESSE B. JOHNSON

Dr. Jesse Brealand Johnson, Galveston, died of cancer on August 18, 1958.

Born February 6, 1890, in Titus, Dr. Johnson was the son of George F. and Margaret (Myers) Johnson. He received his preliminary education in Waco and attended Baylor University there. He was graduated from the University of Texas Medical Branch in 1913 and served his residency at John Sealy Hospital, Galveston. He did postgraduate work at Scott and White Clinic, Temple, and was a surgeon in the United States Public Health Service in Galveston for 5 years. Dr. Johnson had practiced in Galveston since 1925, specializing in radiology. During his career, he served as professor of radiology at the University of Texas Medical Branch, Galveston.

Dr. Johnson was a member of the Texas Medical Association, American Medical Association, Radiological Society of North America, and American Roentgen Ray Society and a fellow of the American College of Radiology. He was also a member of the American Association of

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

DR. JESSE B. JOHNSON

DR. MARION H. BENNETT

Railway Surgeons, Postgraduate Medical Assembly of South Texas, and Southern Medical Association and a charter member of the Galveston County Memorial Hospital. He was a past president of Galveston County Medical Society and Texas Radiological Society. In 1927, Dr. Johnson held the position of secretary of the Section on Radiology and Physiotherapy of the Texas Medical Association. He was a diplomate of the American Board of Radiology and had written numerous articles for radiology journals. Dr. Johnson was a member of the Episcopal Church and Phi Beta Pi Medical fraternity. His hobbies were hunting and fishing.

Survivors include his wife, the former Miss Lulu Larsen of Galveston, whom he married December 31, 1917, in Galveston; a son, Dr. Jesse B. Johnson, Jr., La Marque; a brother, Dr. Seale I. Johnson, Houston; and three sisters, Mrs. L. S. Zimmerman, Waco; Mrs. Margery Rodgers, Austin; and Mrs. George F. Johnson, Orinda, Calif.

DR. MARION H. BENNETT

Dr. Marion Horton Bennett, Big Spring, died August 25, 1958, as a result of a ventricular fibrillation.

Son of D. C. and Susan (Johnson) Bennett, Dr. Bennett was born January 6, 1895, in Cortner, Tenn. He attended San Marcos Junior College, San Marcos, and the University of Texas, Austin, before being graduated from Tulane University Medical School in New Orleans in 1921. He served his internship at the Charity Hospital, New Orleans, and his residency at the Shreveport Charity Hospital, Shreveport. In World War I, Dr. Bennett was a private in the United States Army.

Dr. Bennett began practice with an oil company in Veracruz, Mexico. He had practiced in Big Spring since 1924, serving as chief of staff of the Howard County Hospital Foundation. He was a member of the Texas Medical Association, American Medical Association, and Howard-Martin-Glasscock Counties Medical Society. He was a member of the Big Spring school board for 16 years, its president for 5. He was president of the Chamber of Commerce in 1953, a founding member of the Big Spring Country Club and Howard County Athletic Club, and a member of the Masonic Lodge and Knights Templar. Dr. Bennett was one of the organizers of the Futurity, a breeders' race for southwestern horsemen, and was a former president of the Sheriffs Posse. He enjoyed polo playing.

Dr. Bennett and Miss Maude Leeper were married March 10, 1925; she died March 20, 1958. A daughter, Dr. Louise Worthy of Big Spring, survives.

DR. GEORGE G. WYCHE, JR.

Dr. George Griffin Wyche, Jr., of Alice died September 9, 1958, following a plane crash.

The son of George G. and Else Clair (Davis) Wyche,

DR. GEORGE G. WYCHE, JR.

he was born May 26, 1918, at Iago. His early education was received at Alice and later he attended Texas College of Arts and Industries at Kingsville. He was graduated from Baylor University at Waco and received his doctor of medicine degree from Temple University at Philadelphia in 1943. He was an intern and resident at Jefferson Davis Hospital in Houston, serving also as assistant and chief surgical resident. Following his service in the United States Navy as a lieutenant, junior grade, from 1946 to 1947, he returned to Alice, where he practiced until his death.

Dr. Wyche was a member of the American Medical Association and the Texas Medical Association. He was secretary-treasurer for two terms and president for one term for the Brooks-Duval-Jim Wells Counties Medical Society. He also belonged to the National Rifle Association. His hobbies were hunting, fishing, and astronomy.

Dr. Wyche and the former Miss Adda Carmelle Speirs were married May 8, 1943, at Philadelphia. She survives as do four children, George III, James, Bruce Lynn, and Scott Warren; three brothers, Robert Edward Wyche of Longview, James Lawrence Wyche of Casper, Wyo., and Donnie Mac Wyche of Alice; one sister, Mrs. Charles Loring of San Antonio; and his father, Dr. G. G. Wyche, Sr., of Alice.

DR. VIOLET H. KEILLER

Dr. Violet Hannah Keiller, former chief pathologist at Hermann Hospital in Houston, died of a heart attack September 24, 1958.

Born in Edinburgh, Scotland, October 27, 1887, Dr. Keiller came to the United States in 1891 with her parents, Dr. William and Eliza Henrietta (McLaughlin) Keiller. Dr. Keiller received her bachelor of arts degree from Bryn Mawr College in Philadelphia, later being graduated from the University of Texas School of Medicine, Galveston, where her father was the first professor of anatomy and later served as dean of the school for many years. She practiced at Galveston before going in 1927 to Houston, where she specialized in the diagnosis of cancerous tissues. Formerly an instructor of surgical pathology at the University of Texas Medical Branch at Galveston, she was also professor emeritus of pathology at Baylor University College of Medicine in Houston. After working at Hermann Hospital for 30 years, Dr. Keiller retired 5 years ago. She then served as a consultant to the M. D. Anderson Hospital and Tumor Institute and to Hermann Hospital. Shortly after her retirement, the Violet H. Keiller Award, made possible by ex-internes and residents at Hermann Hospital, was established to afford the most outstanding student each year an opportunity to further his studies in the profession.

Dr. Keiller was a member of the Harris County Medical Society, the American Medical Association, and the American Society of Clinical Pathologists and a diplomate of the American Board of Pathology. A member of the Texas Medical Association since 1916, she served as chairman of the Section on Pathology of that Association in 1930 and was elected to honorary membership in 1953. Dr. Keiller belonged to the Trinity Episcopal Church.

Survivors include two sisters, Miss Mabel M. Keiller and Miss Margaret Keiller, and one brother, Thomas M. Keiller, all of Houston.

DR. E. B. STROTHER

Dr. Edwin Bower Strother, Dallas, died September 13, 1958, of arteriosclerotic heart disease.

The son of J. S. and Emily (McCullough) Strother, he was born September 28, 1873, at Garland. He attended schools in Sherman and the University of Texas Medical Branch at Galveston. He was graduated from Tulane University School of Medicine in 1901, later doing postgraduate work at the New York Polyclinic. He practiced at Mertens, Wheatland, Reinhardt, Plano, and Jacksonville before going to Dallas in 1912. Dr. Strother was house physician at the Virginia K. Johnson Home in Oak Cliff for 15 years and served on the staff of Methodist Hospital. In 1943 he retired from medical practice because of a coronary involvement.

A member of the Dallas County Medical Society and

DR. VIOLET H. KEILLER

DR. E. B. STROTHER

the American Medical Association, he was elected to honorary membership in the Texas Medical Association in 1946. He was also a chapter member of the Oak Cliff Lions Club and the Senior Citizens of the University Park Methodist Church and a founder of the Senior Citizens Memorial Fund. He was a member of the Odd Fellows Lodge. For 44 years he was a member of Tyler Street Methodist Church, where he served two terms as chairman of the official board.

In 1902, Dr. Strother married Miss Lena Hill Snead, who died in 1941. Dr. Strother later married Mrs. Effie Margaret Blackwell, who survives him.

Other survivors include three daughters, Mrs. Bert L. Smith of Concord, Calif.; Mrs. E. Hearst Blackwell and Mrs. Lee R. Gunstream, both of Dallas; one brother, A. O. Strother of Ballinger; 7 grandchildren; and 10 great-grandchildren.

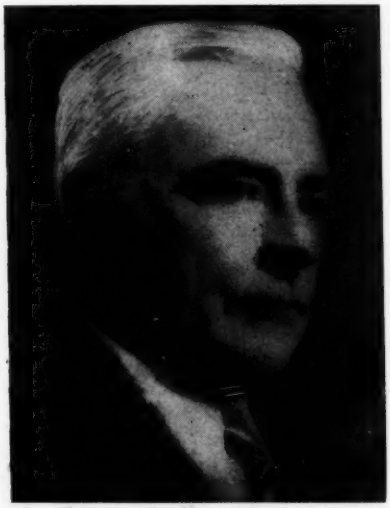
DR. HENRY I. STOUT

Dr. Henry Isiah Stout of Sherman died August 29, 1958, of acute myocardial infarction.

A native of Washington, D. C., Dr. Stout was born November 20, 1883, the son of Henry I. and Nellie (Duerson) Stout. After being graduated from the George Washington University School of Medicine, Washington, D. C., in 1907, he interned at the United States Jail in Washington, D. C., and at the Washington Asylum Hospital. He served a residency at Guys' Hospital in London, England, in 1911. Associated with the Mamora Maderie Railroad Association in South America from 1907 until 1910 and again from 1911 to 1912, he later practiced at Brandy, Va., and at Morgantown, W. Va., before going in 1917 to Sherman, where he stayed until his death.

A member of the Grayson County Medical Society and the American Medical Association, Dr. Stout was elected to honorary membership in the Texas Medical Association in 1955 after having held regular membership in the Association for 38 years. He also belonged to Phi Chi medical fraternity.

Dr. Stout and Miss Anna Underwood were married in 1913 in Philadelphia. Mrs. Stout survives as well as two daughters, Mrs. Max Shelton of Sherman and Mrs. Saunders Freels of Denison; one son, Dr. Joseph H. Stout of Sherman; and one sister, Miss Estelle Stout of Memphis.



DR. HENRY I. STOUT

DR. J. M. VAN NESS

Dr. Julius Melville Van Ness, San Marcos, died October 9, 1958, of congestive heart failure.

A native of Prairie Dell in Bell County, Dr. Van Ness was born August 25, 1876, the son of T. E. and Fannie (Wilkerson) Van Ness. Receiving his early education at Belton High School, he was graduated from the University of Tennessee College of Medicine in 1903. He served a residency at San Marcos Hospital, San Marcos, and did postgraduate work at Tulane University, New Orleans. After a short period of practicing medicine in East Texas, Dr. Van Ness moved to Prairie Lea, where he practiced for 12 years, and later to San Marcos, where he was an eye, ear, nose, and throat specialist. During World War I, he was a first lieutenant and then a captain with the United States Army.

DR. J. M. VAN NESS

A member of the Hays-Blanco Counties Medical Society, he was elected to honorary membership in the Texas Medical Association in 1952. He was president of his county society in 1932 and also belonged to the American Medical Association. He was a member of the Masonic Lodge.

He was married to the former Miss Carrie Ogletree in 1905. She survives as do a sister, Mrs. O. K. Griggs of Albuquerque, and a half-brother, Robert Patterson of San Antonio.